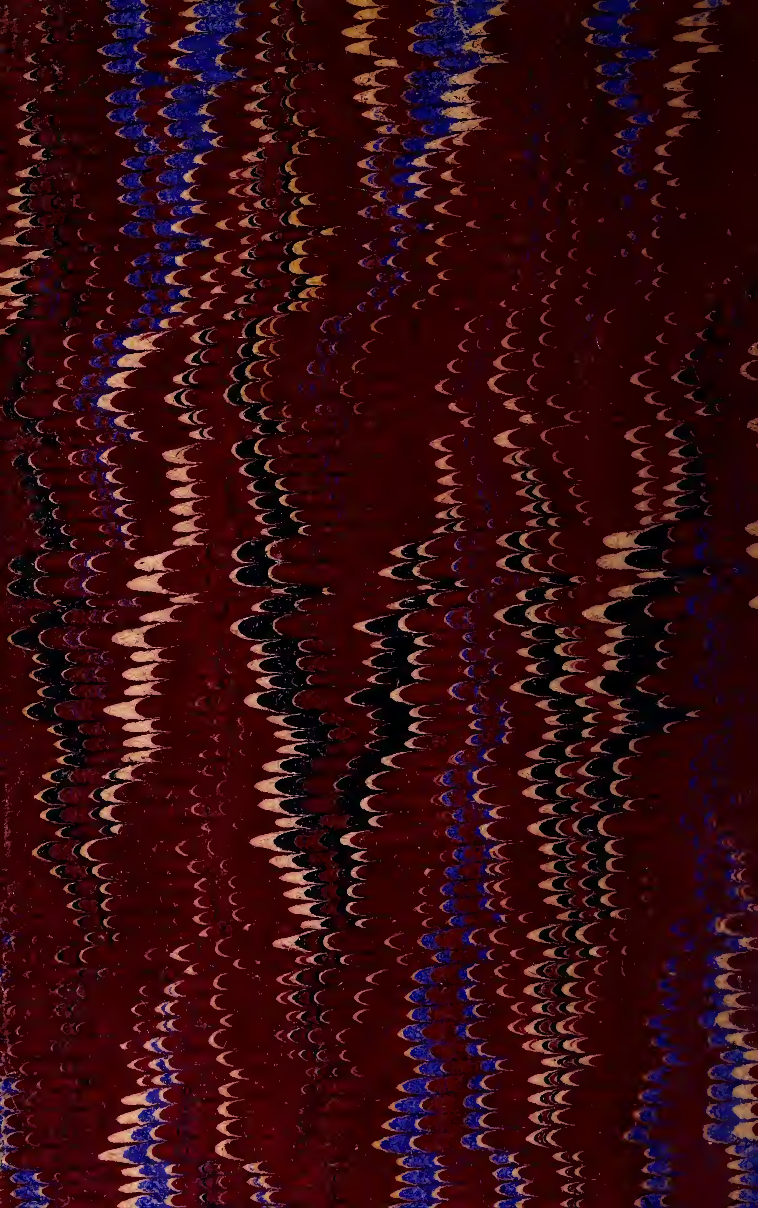
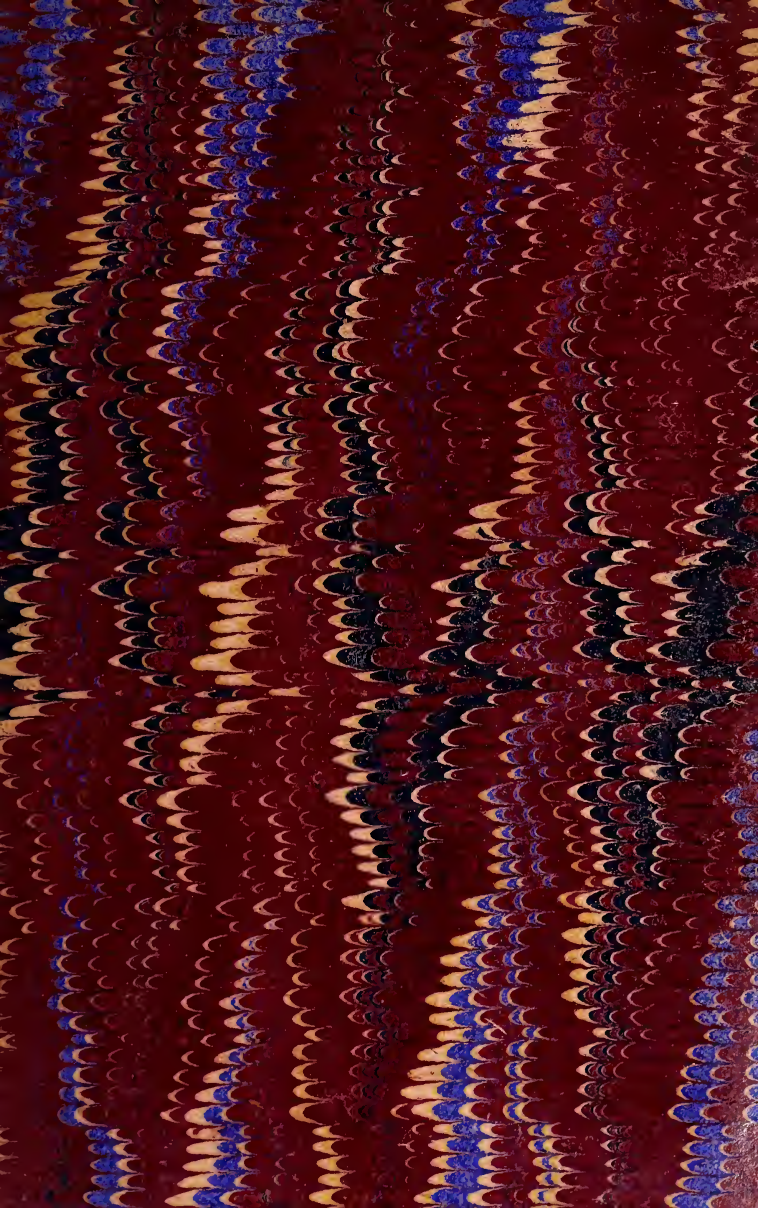
COOK'S
HANDBOOK FOR EGYPT AND THE SÛDÂN

BY

SIR E. A. WALLIS BUDGE, LITT.D.





COOK'S HANDBOOK

FOR

EGYPT AND THE EGYPTIAN SÛDÂN.

WITH CHAPTERS ON EGYPTIAN ARCHÆOLOGY.

BY

SIR E. A. WALLIS BUDGE,
M.A., LITT.D., D.LITT., D.LIT., F.S.A., ETC.
KEEPER OF THE EGYPTIAN AND ASSYRIAN ANTIQUITIES IN THE BRITISH MUSEUM.

FOURTH EDITION.

WITH 9 MAPS AND 182 PLANS AND ILLUSTRATIONS IN THE TEXT



LONDON:
THOS. COOK & SON, LUDGATE CIRCUS, E.C.
SIMPKIN, MARSHALL, HAMILTON, KENT & CO., LTD.

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1921.

HARRISON AND SONS, LTD.,
PRINTERS IN ORDINARY TO HIS MAJESTY
ST, MARTIN'S LANE, LONDON, W.C. 2.

PREFACE TO THE FOURTH EDITION.

In 1886, after hearing some lectures which I gave that year in Aswân, my friend, the late Mr. J. M. Cook, asked me to write a short description of the principal Egyptian monuments on the Nile as far south as the Second Cataract, for the use of those who travelled in Egypt under the special arrangements made by Messrs. Thos. Cook & Son. Following the general suggestions which he made, I prepared a description of the most important ancient Egyptian remains, and it appeared in 1888–9 in the form of a small octavo volume entitled "The Nile: Notes for Travellers." This little work dealt exclusively with the temples and tombs on the Nile between the Mediterranean and the foot of the Second Cataract, a few miles to the south of Wâdî Ḥalfah. It made no attempt to describe all Egypt and Nubia, and in no way laid claim to be a "Guide" to Egypt. The increase in facilities for visiting ancient sites in Egypt, the quickened progress of archæological research in that country, and the rapid development of its resources under British rule, made it necessary to enlarge from time to time my "Notes for Travellers." Mr. J. M. Cook spared no expense in having the text revised for each edition and brought up to date, and the work grew larger and larger, until, in the Twelfth Edition (which appeared in 1913), it contained nearly 1,000 pages. My "Notes for Travellers" seemed to fill a want. Messrs. Cook GAVE a copy of the book to every traveller who went up the Nile on their large and comfortable steamers, and in spite of

the numerous applications for copies and pressing offers to purchase which have been made to Messrs. Cook in London and Cairo, they have kept the book "out of the trade," and have never parted with a copy for payment.

Now, there remained a great deal of information about places and monuments off the beaten track which could not be compressed into the "Notes for Travellers," and as demands for a Guide to Egypt which could be purchased became more numerous and insistent, Messrs. Cook decided to issue a "Handbook for Egypt and the Egyptian Sûdân," with new maps and plans and illustrations. The carrying out of this work was entrusted to my hands, and the present volume is the result.

In preparing this Handbook I have endeavoured to include the principal facts relating to all the ancient monuments in the Nile Valley between the Mediterranean Sea and Kharṭûm. Where necessary, brief descriptive paragraphs, chiefly of an historical character, have been added. In this edition full accounts of the routes to Mount Sinai, Jerusalem, the Natron Valley and the Oases in the Western Desert, Port Sûdân, Ḳûṣêr and Berenice on the Red Sea, and an Itinerary of the Nile Valley from Kharṭûm to Sennaar, and from Kharṭûm to the great Equatorial Lakes, have been added.

In the Introduction (pp. 1-27) will be found a mass of practical information for travellers and a series of suggestions which should be carefully studied by those who intend to travel in Egypt. These suggestions are the outcome of the great experience of Messrs. Cook, and in drawing them up I have had the benefit of their invaluable assistance. Travellers in Egypt owe the ease and comfort which they now enjoy in journeying through the country entirely to the efforts of Messrs. Cook, who were the first to organize the tourist system and to make the antiquarian marvels of Egypt available to all classes.

They have spared neither pains nor money in perfecting their arrangements for travellers, and seize promptly every opportunity of placing at the disposal of those who travel under their care the advantages of rapid and comfortable transit inaugurated by British enterprise. The experience of their officials is unrivalled, and on all questions concerning travel they impart full information to all enquiries freely and courteously.

This Handbook is divided into Five Parts. Part I pp. (28–118) contains a description of the land of Egypt in ancient and modern times; of the Nile and its sources, and its Cataracts and Barrages; of the modern Egyptians and their religions and manners and customs; and of the Government of Egypt, Trade, Revenue, &c. Part II (pp. 119–347) describes the Delta, Alexandria, Port Sa'îd, Suez (Suwêz) and the Suez Canal, Cairo, Heliopolis, Memphis, Ṣaḳḳârah, and the Coptic and Arab buildings of Cairo and Fusṭâṭ. In this Part too are included excursions from Cairo to the Fayyûm, Damietta, Sîwah, and the other Oases, Jerusalem and Sinai. Part III (pp. 348–541) deals with all the principal antiquities from Cairo to Wâdî Ḥalfah; and Part IV (pp. 542–634), with Nubia and the Egyptian Sûdân. In Part V (pp. 635-862) is given a series of Chapters on Egyptian Archæology. In earlier editions of this Handbook these appeared in the Introduction, but it was thought that the traveller might find them more convenient for reference if they were printed at the end of the book, and there, accordingly, they are now placed. They contain a connected outline of the History of Egypt, brief accounts of the Writing, Religion, Art, Architecture, Learning, &c., of the Ancient Egyptians, and descriptions of the principal facts about the Religion of the Muḥammadans, Arab Architecture, &c. Hieroglyphic type has been used wherever necessary, and in the list of cartouches of Egyptian Kings, all the royal names

which are commonly found on scarabs, as well as those of Ptolemies and the Roman Emperors, have been included.

For facts and figures connected with the British Occupation of Egypt, the Rebellion of the Mahdî and Khalîfah, the Reconquest of the Sûdân, the Nile and irrigation works in Egypt and the Sûdân, I have drawn largely from the official reports of Lord Cromer, Sir Eldon Gorst, Lord Kitchener, Lord Allenby, Sir William Garstin, Count Gleichen and Captain H. G. Lyons, and on the non-official publications of Sir R. Wingate, Slatin Pâshâ, the late Father Ohrwalder, Charles Royle, Naum Shukêr Bey, and others. The plans and illustrations given in this Handbook are derived from authoritative sources, among which may be mentioned the works of Coste, Prisse d'Avennes, Lepsius, Howard Vyse, Mariette, J. de Morgan, the great *Description de l'Égypte*, the *Survey* of the Palestine Exploration Fund, the *Mémoires* of the French Archæological Mission in Cairo, etc.

The note on the age of the Temple of Åmen at Karnak printed on pp. xviii–xx should have appeared in the section of this Handbook which treats of Karnak, but this was already in type when the pamphlet published by the Egyptian Government came to hand.

My thanks are due to Messrs. Harrison & Sons, Ltd., for the care which they have bestowed upon the printing of this work, and to their staff, and especially to Mr. L. Lovett and Mr. H. Andrew.

E. A. WALLIS BUDGE.

BRITISH MUSEUM,
August 5, 1921.

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NOTE ON THE ANTIQUITY OF THE GREAT TEMPLE OF ÅMEN-RĀ AT KARNAK.

Many of the greatest excavators of antiquities in Egypt have devoted much time and labour to the task of ascertaining the age of this wonderful temple. Mariette, in his masterly work "Karnak," showed clearly that certain parts of this great mass of temple-buildings were as old as the XIIth dynasty, and he succeeded admirably in dating the works that were built there by kings of the XVIIIth, XIXth and succeeding dynasties. The late G. Legrain, in excavating a vast pit that had been filled up with the statues, &c., of priests and officials, found evidence that made it certain that a temple of some kind occupied the site of Karnak in the XIth dynasty. There seemed to be no good reason why this XIth dynasty temple should not have stood on the site of an earlier building, and the present writer believed, and still believes, that a "God-house" or shrine of some sort stood there in early dynastic times. The "God-house" at Karnak was always associated

with the cult of the god Åmen, and the symbol of this local god, which was described some years ago by Daressy, suggests that he was known and revered in predynastic times, probably long before Rā was adopted as a national god by the Egyptians of the Delta. Be this as it may, it was quite certain that a temple dedicated to Åmen existed at Karnak in the XIth dynasty, and with this fact archæologists had to be content. About the year 1890 the late Sir Norman Lockyer, F.R.S., visited Egypt and studied the temples and their sites, and he came to the conclusion that all the temples and pyramids of Egypt were oriented to celestial bodies, and that calculations based on observations of their major axes would enable him to assign correct dates for their foundation. In 1894 he published the result of his studies in his "Dawn of Astronomy," and stated that the temples were "astronomical observatories" (p. 109) built to enable the priests "to observe the precise time of the solstice," and he regarded them as "horizontal telescopes," the apertures in the pylons and separating walls representing the "diaphragms of the modern telescope." His idea was that a narrow beam of sunlight would come through the narrow entrance about 500 yards from the Holy of Holies, and light up the figure of the god seated in the dark therein for about two minutes, provided the temple were properly oriented to the solstice. This would happen once a year and tell the priests that a new year was beginning. Applying his theory to the Temple of Karnak he proved by his calculations that it was founded in the year 3700 B.C. Few Egyptologists possessed sufficient astronomical knowledge to check Lockyer's figures, and his results were not accepted by archæologists generally. In 1920 the astronomical experts in the service of the Egyptian Government reviewed Lockyer's figures and results, and carefully examined the whole site of Karnak and worked out the line of the major axis of the

temple of Åmen. They came to the conclusions that the temple could not have been oriented as Lockyer declared, that if it had been it would be much older than he stated, and that his theory is unsupported by facts and must therefore be abandoned. The dates proposed by Lockyer for the building of the pyramids on the Island of Meroë, which led astray the present writer and others, have been proved impossible by archæological evidence. But the Egyptologist is just as incapable of judging the accuracy of the recent decision of the astronomical experts of the Egyptian Government as he was in estimating the true value of Lockyer's calculations and the deductions he made from them. Lockyer may have been wrong, but it does not follow necessarily that his critics are right. The reader who wishes to find out details of the new theory will find it described in a pamphlet published by the Egyptian Government in Cairo, price ten piastres.

HANDBOOK

FOR

EGYPT AND THE EGYPTIAN SÛDÂN.

Practical Information for Travellers.

(1) **Routes to Egypt.**—Starting from London, the traveller may journey to Egypt the whole way by sea, or he may use one of the quicker transcontinental routes. To those who have sufficient time, and who are either indifferent or superior to sea-sickness, the long sea route offers many attractions; it occupies from 12 to 14 days. The principal long sea routes to Egypt are:—

From London, by the Peninsular and Oriental, Orient, and Royal Mail lines.

From Liverpool, by the Bibby, Anchor, Henderson, and other lines of steamers.

If the traveller decide to employ one of the transcontinental routes, he may embark at Marseilles, Toulon, Trieste, Venice, Genoa, Naples, or Brindisi, from which ports there is frequent communication with Egypt. Full particulars as to the days and hours of sailing, fares, etc., may be obtained from the offices of Messrs. Thos. Cook & Son.

(2) **Season for Travelling.**—Speaking generally, the season for travelling in Egypt extends from the beginning of November to the end of April. In Lower Egypt, that is, all the country north of Cairo, November, February, March, and April are delightful months, but in Cairo it is somewhat cold in December and January, and when during these months rain falls in heavy showers throughout the Delta the climate occasionally is unpleasant. Those who like heat will find both May and October very enjoyable months, especially in Lower Egypt. Travellers who are intending to visit Palestine and Syria as well as Egypt cannot do better than select November, December, January, and February, or until the middle of March, for their Nile journey, and March, April, and May, the most genial months of the year, for Palestine. (See pp. 286–288). On the other hand, many people prefer to see the Holy Land in the

autumn, and in this case they should travel there during October and November, and make their journey up the Nile when they return in November or December..

(3) **Length of Visit.**—No hard-and-fast rule can be laid down as to the time which it is necessary to spend in Egypt in order to get a general idea of the country, for in the majority of cases this depends entirely on the individual. A traveller who can endure an ordinary amount of fatigue, and is tolerably active and industrious, and will be contented to be advised by those who have a practical knowledge of the country, can in from 35 to 40 days see a great deal of Egypt; moreover, each year brings with it new and increased facilities for travelling, and the traveller can now move with extraordinary rapidity from one great town to another. All that is wanted is a carefully thought-out plan, and fixity of purpose to carry it out. If a traveller can spare five weeks for his journey in Egypt itself he should give two days to Alexandria, 14 days to Cairo, and 20 to 24 days to his trip to Aswân, including a stay of three or four days at Luxor. In five weeks all the principal temples and ruins between Cairo and the First Cataract can be seen, and if another week can be spared, a visit to the Second Cataract and Wâdî Ḥalfah, and to the temple of Rameses II at Abû Simbel, can be included. Invalids and persons seeking relief from sickness or disease must, of course, follow the instructions of their medical advisers, and their movements cannot be taken as the standard for moderately healthy folk who have only a very limited time to spend on their trip, and who intend to see all they can in a short period. Before the advent of Messrs. Thos. Cook & Son's Tourist Steamers in 1886 it was customary for travellers to make the voyage up the Nile in a *dahabiyyah*, *i.e.*, a kind of large house-boat with sails, and it was no uncommon thing for a party to spend four or five months in travelling from Cairo to Wâdî Ḥalfah and back. By the aid of steam it was found possible for the tourist to see the principal antiquities on both banks of the Nile in about 30 days, and large numbers availed themselves of the opportunities offered to them by Messrs. Cook. The Tourist Steamer has been the means of throwing open the wonders of Egypt and the Nile to thousands of people who would otherwise have been debarred by expense from seeing one of the most wonderful countries in the world.

(4) **Expenses and Hotels.**—The cost of a tour in Egypt varies according to its length and the needs of the traveller,

and it is futile to estimate the daily cost of living unless the place of abode and the habits of the visitor are known. From 20*s.* to 30*s.* a day should pay for board and lodging in an ordinary way, but carriages and the services of a good and capable dragoman, or interpreter, are somewhat expensive items if required frequently. The electric trams, though the clang of their bells is deafening, afford a very quick and cheap means of locomotion, and they have made readily accessible many parts of the city which formerly could only be visited in a carriage. There is no doubt that the cost of living comfortably in Cairo has risen since the War, and that servants of all kinds are not satisfied with the gratuities which would have been received gratefully a few years ago. It must, however, be remembered that it costs more to live among clean surroundings and in comfort than in discomfort, and that the proprietors of large luxuriously furnished hotels, built on sites in the most expensive and fashionable quarters of a town, must charge a higher rate per day than those who own hotels and pensions which stand in old and insalubrious quarters.

Thos. Cook & Son have made such arrangements in the East that the most inexperienced travellers may avail themselves of them without fear of not being able to get on as well as on the beaten Continental routes. **Hotels.** Accommodation may be secured in advance through Messrs. Cook & Son at any class of hotel, from single bedrooms to suites of apartments, on any floor, with whatever aspect may be desired, and "en pension" terms are arranged for an extended stay. Those who propose making a Tour to Egypt, with extension to Palestine, Sinai, or elsewhere, should furnish a list of the places they wish to visit, and Thos. Cook & Son will promptly send them a quotation which will represent the lowest price possible for which the journey can be accomplished, according to the class of travel and character of the accommodation required.

(5) **Dragomans.**—The traveller who is a stranger in Egypt, and has no knowledge of the language, will find his pleasure greatly increased if he hires a dragoman,* *i.e.*, an

* This interesting word is derived through the Arabic *targumân*, تَرجُمان, from the old Assyrian, [cuneiform], *tar-gu-man-nu*. The word occurs in a list of officials written on a tablet in the British Museum (K 2012, *Rev.*, line 5).

"interpreter," for good dragomans save their employers time, trouble, and money. It often requires considerable moral courage to keep these individuals in their proper places, for the more useful and capable they are the more easy is it for their employers to lose control over them. Dragomans are of two classes, *i.e.*, those who undertake the charge of parties on long journeys, and those who act merely as guides to the various places of interest in cities or towns. The former are often educated men, and can speak from two to five languages; the latter can usually speak English or French, but are useful chiefly in conducting the traveller from one part of the city to another when his time is limited.

Messrs. Thos. Cook & Son are now able to select their dragomans from a number of well-qualified candidates, and at the present time they are inferior to none in the country in general information about the temples, tombs, etc., and in courtesy. Many Egyptians who offer to escort the tourist, and call themselves dragomans, are neither authorized nor qualified to act as such, and they bring discredit on Messrs. Cook's well-informed dragomans.

(6) **Money and Coinage.**—Travellers are recommended to carry the money they require on the journey in **Circular Notes** issued by Thos. Cook & Son as these afford great security, and can be cashed readily. Circular notes are issued for sums of £20 and upwards (in notes, £20, £10, and £5 each), and **Letters of Credit** for sums of £100 and upwards. Foreign moneys can be obtained from the head office and principal branches of Thos. Cook & Son, who, having branch offices and correspondents in all parts of the East, are in a position to offer special facilities to travellers for the arrangement of all matters connected with Foreign Banking and Exchange.

The **Egyptian pound** (£E.) contains **100 piastres**, and each piastre contains 10 millièmes; it is worth **20s. 6d.**, or nearly **26 francs.** The pound being divided into 100 piastres, each piastre, which is called a piastre* tariff (P.T.), is worth $2\frac{1}{2}d.$, and a millième is therefore worth $\frac{1}{4}d.$ The **English pound** or sovereign is worth **$97\frac{1}{2}$ P.T.**; the Napoleon, or 20-franc gold piece, is worth $77\frac{3}{20}$ P.T.; and the Turkish pound is worth $87\frac{3}{4}$ P.T. Silver coins are the Riyâl, or dollar,

* From the Low Latin *plastra*, a plaster, a thin piece of money (French *piastre*, Spanish and Italian *piastra*). The Arabic for piastre is *ḳirsh* قرس, or *ghirsh* غرش.

which is worth 20 piastres, the half and quarter Riyâl, worth 10 and 5 piastres respectively, and the 2-piastre and 1-piastre pieces. In nickel we have pieces worth 1 piastre, 1, 2, and 5 millièmes respectively. In the old system of coinage a piastre was worth 40 *para*, and 2-*para* and 1-*para* pieces are struck at the present time. These are, however, chiefly used for scattering among children as bakshîsh.

Egyptian Coins and Nickel Coinage.
Silver

20-piastre piece.



Value, 4*s*. 1¼*d*.

10-piastre piece.



Value, 2*s*. 0½*d*.

5-piastre piece.

2-piastre piece.



Value, 5*d*.



Value, 1*s*. 0¼*d*.

1-piastre piece.



Value, 2½*d*.

Nickel. 1-piastre piece; *i.e.*, "piastre tariff" or "big piastre."



Nickel. Half-piastre piece; *i.e.*, the "little piastre."



Nickel. 2 millîms.



Value, one half-penny. (10 mill. = 1 piastre.)

Nickel. 1 millîm.



Value, one farthing or four *paras*.

Comparative Table of Egyptian and English Money.

One Egyptian pound, or 100 piastres, or 1,000 millièmes = £1 0*s.* 6*d.*

Pias.		£	*s.*	*d.*	£E.		£	*s.*	*d.*	£E.		£	*s.*	*d.*
1	=	0	0	2½	1	=	1	0	6	27	=	27	13	10
2	=	0	0	4¾	2	=	2	1	0½	28	=	28	14	4½
3	=	0	0	7¼	3	=	3	1	6½	29	=	29	14	10½
4	=	0	0	9¾	4	=	4	2	0½	30	=	30	15	4¼
5	=	0	1	0	5	=	5	2	7	31	=	31	15	10½
6	=	0	1	2½	6	=	6	3	1	32	=	32	16	5
7	=	0	1	5	7	=	7	3	7	33	=	33	16	11
8	=	0	1	7½	8	=	8	4	1½	34	=	34	17	5
9	=	0	1	10	9	=	9	4	7½	35	=	35	17	11½
10	=	0	2	0½	10	=	10	5	1½	36	=	36	18	5½
11	=	0	2	3	11	=	11	5	7½	37	=	37	18	11½
12	=	0	2	5½	12	=	12	6	2	38	=	38	19	6
13	=	0	2	8	13	=	13	6	8	39	=	40	0	0
14	=	0	2	10½	14	=	14	7	2	40	=	41	0	6
15	=	0	3	1	15	=	15	7	8½	41	=	42	1	0
16	=	0	3	3½	16	=	16	8	2½	42	=	43	1	6½
17	=	0	3	6	17	=	17	8	8½	43	=	44	2	0½
18	=	0	3	8¼	18	=	18	9	3	44	=	45	2	6½
19	=	0	3	10½	19	=	19	9	9	45	=	46	3	1
20	=	0	4	1¼	20	=	20	10	3	46	=	47	3	7
30	=	0	6	2	21	=	21	10	9½	47	=	48	4	1
40	=	0	8	2½	22	=	22	11	3½	48	=	49	4	7½
50	=	0	10	3	23	=	23	11	9½	49	=	50	5	1½
60	=	0	12	3¾	24	=	24	12	4	50	=	51	5	7½
70	=	0	14	4	25	=	25	12	10	100	=	102	11	3½
80	=	0	16	5	26	=	26	13	4					
90	=	0	18	5½										
100	=	1	0	6¼										

Comparative Table of Egyptian and American Money.

Pias.			Pias.		
1	=	5c.	50	=	$2.50
2	=	10c.	100 or 1 Egyptian pound	=	$5
5	=	50c.	200	=	$10
20	=	$1	400	=	$20
40	=	$2			

(7) Weights and Measures.

Uḳîyah = 12 dirhams = 1·3206 ounces = ·066 pint = 37·44 grammes.
Roṭl = 12 uḳîyah = 144 dirhams = ·4449312 kilogramme = ·99049 lb. = ·79 pint.
Uḳḳah = 400 dirhams = 2·77 roṭls = 2·19 pints = 2·7513 lbs. = 1·235920 kilogrammes.
Ḳanṭâr = 100 roṭls = 36 uḳḳah = 98·09 lbs. = 44·49312 kilogrammes.

Measures of Length.

Pik or Dirâ (Baladi, *i.e.*, of the country) ... = 23·01 inches = ·585 metre.
Pik (Turkish and Indian) ... ... = $26\frac{1}{3}$ inches = ·66 metre.
Pik (used in building) ... ... = 29·53 inches = ·75 metre.
Pik (Nile gauge) ... . = ·54 metre.
Ḳaṣabah ... ... = 11 ft. 8 in. = 3·550 metres.

Measures of Surface.

Ḳirrât (square) ... ... = 175·034722 square metres.
Pik (square, used in building) = 6·43 square feet = 5·62 square metres.
Pik (cubic, used in building) = 14·90 cubic feet.
Ḳaṣabah (square) ... ... = 13·04 square yards.
Ḳaṣabah (cubic) ... ... = 44·738875 cubic metres.
Faddân ... ... = 1·03808 acre = 5,082 square yards = 4200·833333 square metres. This is the unit of measure for land.

Dry Measure.

Ardab = 3 ḳantârs = 43·95 gallons = 5·49 bushels = 198 litres = 300 pounds = 108 uḳḳah = ·19774770 cubic metre. A kîla = $\frac{1}{12}$ ardab.

The approximate weight of the ardab is as follows:—Wheat, 315 roṭl.; beans, 320 roṭl.; barley, 250 roṭl.; maize, 315 roṭl.; cotton seed, 270 roṭl.

The Sâ'a (literally, hour) is any distance between $2\frac{1}{2}$ and $4\frac{1}{2}$ miles.

Old measures of length are:—FITR, the space between the thumb and first finger when extended. SHIBR, the space between the thumb and little finger, when extended, *i.e.*, a span. ḲABDAH, the measure of a man's fist with the thumb erect.

Ḳirrâṭ (hence our *carat*) ... = 3 grains (Troy).
Dirham (16 carats) ... ... = 48·15 grains (Troy) = ·11 ounce.
Mithḳâl (24 carats) ... ... = 72·22 grains (Troy).

Weights and Measures.

(French and English compared.)

1 metre	=	3·28090 feet.
1 ,, (square)	=	10·7643 ,, (square).
1 ,, (cubic)	=	35·3166 ,, (cubic).
1 ,, ,, ...	=	220·097 gallons.
1 ,, ,, ...	=	27·5121 bushels.
1 foot	=	·304794 metre.
1 ,, (square)	=	·09290 ,, (square).
1 ,, (cubic)	=	·028315 ,, (cubic).
1 gallon	=	·004543 ,, ,,
1 bushel	=	·036348 ,, ,,
1 kilogramme	=	2·2046 lb.
1 lb.	=	·453593 kilogramme.
1 acre	=	4046·71 square metres.
5 miles	=	8 kilometres (approx.).

(8) **Official Time.**—Official time is that of the 30th Meridian East of Greenwich (East European time), and is two hours fast of Greenwich or West European time, and one hour fast of Central European time. A gun is fired at the Citadel daily at noon (East European time) by an electric current sent by the Standard Clock from the Observatory at Helwân. The same current also gives an electric signal to Alexandria, Port Sa'îd, and Wâdî Ḥalfah.

The day begins at sunset according to the Muḥammadans and Jews, and at sunrise according to the Copts.

(9) **Passports and Customs**:—Passports are absolutely necessary, and they are useful in order to procure admission to certain places of interest, to obtain letters from the Poste Restante, and especially to establish identity whenever required. The traveller must hold a valid passport bearing *visa(s)* of a Consular Representative in the United Kingdom for the country or countries to or through which he is proceeding. He must be careful to see that the endorsement and *visas* fully cover the period and route, as neglect of this may involve him in serious difficulties. Thos. Cook & Son will obtain passports with the necessary *visas* of foreign Ambassadors or Consuls. The Customs-house examination at Egyptian ports is carefully performed. There are Customs Houses at Alexandria, Port Sa'îd, Cairo, Suez, Damietta, Ḳuṣêr (Kosseir), Kanṭarah, Isma'îlîyah, Rosetta, Al 'Arîsh, Abu Zanîmah, Safâgah, Sollûm, Burgadah, and Gamîsah. An 8 per cent. *ad valorem* import duty plus half per cent. import Customs dues is charged on all goods entering the country, and at Alexandria an additional half per cent. is charged for quay and paving dues. The import duty and dues of 8½ per cent. are charged on objects in tourists' accompanied baggage, if new, and the import dues of half per cent. are charged on all articles whether new or old arriving as unaccompanied baggage. The duty on tobacco is:—leaf, 60 piastres per kilo, manufactured; and cigars, 70 piastres per kilo; an extra duty of 2 piastres per kilo is charged when not coming from countries having a Commercial Convention with Egypt. The export duty is 1 per cent. *ad valorem* on all products of Egypt and the Sûdân, and for all articles shipped as unaccompanied baggage or cargo, Export dues of 22 millièmes per £E. 1 are charged. Antiquities and modern copies of antiquities must be packed in a box separate from other articles and sealed at the Cairo Museum, paying a sealing fee of

6 piastres for each package and $2\frac{1}{2}$ per cent. *ad valorem* Export duty only.

Thos. Cook & Son (Egypt), Ltd., have a special department in Cairo to arrange the above formalities.

The importation of **cartridges** into Egypt by travellers is prohibited, but English cartridges of the very best make are procurable at reasonable prices in Cairo. As agents of the Nobels Explosives Company, Messrs. Thos. Cook & Son have always on hand a large stock of their sporting Ballistite and Empire Powder Cartridges, which are much in favour in Egypt.

For **Quail Shooting** in the Gîzah Province a licence is required. It is obtainable from Messrs. Thos. Cook & Son, and must be renewed in February each year.

On leaving the country luggage is liable to be examined, and no traveller should attempt to export Egyptian antiquities without a special authorization to do so.

Antiquities should be submitted to the authorities of the Egyptian Museum, who will assess their value for export duty, and have them duly sealed with the official seal, and will give the owner a signed permit addressed to the Mûdir of the Customs, instructing him to allow the objects to leave the country.

(10) **Postage and Telegraphs.**—Egypt is included in the General Postal Union, and its Postal and Telegraph Administrations are most ably worked. Every year increased facilities are given to correspondents, and printed statements of these, with the times of the despatch and arrival of mails from all parts of the world, can be seen at all the large Post Offices in Egypt, and at the Offices of Thos. Cook & Son, and at all hotels. The Cash-on-Delivery System has been introduced, and is working successfully; a service between Egypt and Great Britain was established in 1908. At present (1921) the postal rates in and from Egypt are as under:—

Inland and Foreign Postage.

I. For the Interior.

Letters, 5 mills. for 30 grammes or fractions.
Post Cards, 3 mills.
 ,, ,, reply, 6 mills.
Newspapers, 1 mill. per copy.
Non-periodicals, 2 mills. per 50 grammes or fractions (up to 2,000 gr.); minimum, 2 mills.
Samples, 2 mills per 50 grammes.
Registration fee, 5 mills.

II. Countries in Postal Union.

Letters, 15 mills. (U.K. 5 mills.) for each 20 grammes. For each 20 grammes beyond, 10 mills.
Post Cards, 10 mills.
" " reply, 20 mills.
Commercial Papers and Printed Matter, 4 mills. for each 50 grammes. (Minimum, 15 mills. for first-named.)

The use of **Currency Notes** is increasing in Egypt, but as yet they are not readily accepted in small towns and villages off the beaten roads. There is a **Parcel Post** to all the countries in the Postal Union, and **Money Orders** are issued for payment in Egypt on a small commission.

Telegraphs in Egypt are worked by the Egyptian officials for the Egyptian Government, and telegrams may be sent in any European language, except from small local stations, where they must be written in Arabic. The submarine cables connecting Egypt with other countries are worked by English companies with speed, regularity, and success.

Inland Telegrams.

The charges are 10 mills. for every two words or fraction of two words with a minimum charge of 40 mills.

Urgent Telegrams are charged triple rates.

Egypt to Sûdân.

Ordinary telegrams at 20 mills. per 2 words, with a minimum charge of 80 mills.
Urgent telegrams at 55 mills. per 2 words, with a minimum charge of 220 mills.
Double rates are charged on Sundays and official holidays.

Telephones.—Trunk telephone lines exist between Cairo, Alexandria and Port Sa'îd. The public call-offices for it are: for Cairo, at the Bourse; and for Alexandria, in the State Telegraph Office. The charges are:—

75 mills. for three minutes' conversation (10 P.T. between 9 a.m. and 1 p.m.).
Urgent calls, triple rates.

Several villages are connected telephonically with the nearest telegraph office.

(11) **Dress and Equipment.**—It is always desirable in travelling to dispense with unnecessary baggage; at the same time, if the traveller intends to journey for months he must be well supplied with clothing. **Gentlemen** should take with them an evening suit, thick and thin light-coloured tweed suits, a suit of some dark-coloured material for wearing on special occasions, a flannel suit or two, riding breeches and gaiters, thick and thin overcoats, thin and thick pairs of shoes both in black and brown leather. A pair of strong thick-soled shoes, or boots, will be found invaluable in exploring ruins. Woollen socks, flannel and linen shirts, slippers, straw and felt hats, cloth caps, white umbrella lined with green, cork sun-helmet, and an ulster, make a fairly complete outfit. A *kafîyyah*, or turban cloth, to be tied round the hat or helmet in such a way that a good portion of it falls over the neck and sides of the face, should not be forgotten. **Ladies** will find very useful thick and thin brown shoes or boots, and short blue serge skirts, white and coloured cotton and linen shirts, dresses of thicker materials for cold days and evenings, wrappers and cloaks, etc. If shoes are worn in exploring ruins, gaiters will be found most useful for keeping out the sand and for protection against the bites of insects.

Among small **miscellaneous articles** which will be found very useful are the following:—A good field or opera glass, a pocket filter and leather drinking-cup, leather straps, two or three small balls of twine of different thicknesses, a small strong writing case with plenty of writing materials, a good strong pocket-knife with a long blade of well-tempered steel, smoked spectacles, needles, pins, scissors, tape, thread, buttons, compass, small magnifying glass, soap, etc. Artists, geologists, entomologists, and those who wish to pursue a favourite line of study, should take all the most necessary materials with them; photographers can obtain films, etc., in Cairo, but those who wish to be quite certain about the age of their films had better buy as many as they are likely to want before they start for Egypt.

Doctors' addresses may be obtained at any of the hotels. There are resident English practitioners at Cairo (a large number), Alexandria, Helwân, Luxor, Port Sa'îd, Suez, Aswân, Kharṭûm, and Port Sûdân.

(12) **Medicine.**—Egypt is one of the healthiest countries in the world, and if the most ordinary care be taken by the traveller he should need neither physician nor medicine. This remark does not, of course, apply to invalids, who will

follow the advice of their doctors as regards diet, dress, place of abode, etc. In winter it is usually unnecessary to make any change in the way of living, for most people may eat and drink that to which they are accustomed in Europe. In summer those who have experience of the country are careful not to drink wine or spirits in any great quantity until after sundown. Bathing in the Nile should not be rashly indulged in on account of the swift and dangerous under-currents. A Turkish bath will be found delightful after a fatiguing day of sight-seeing, but the bather must be very careful of draughts, and dress with due regard to the temperature out of doors, especially in winter.

At all costs the traveller should guard against chill or cold, for the results are troublesome and annoying, and may be dangerous. It should never be forgotten that the mornings and evenings are cold in winter, and the nights very cold, and arrangements for keeping the body warm should be made accordingly.

Fever, diarrhœa, and **dysentery** are generally the result of cold. The old medicine, Dr. Warburg's Febrifuge, gives much relief in fever, and quinine should be taken *between*, not *during*, the attacks. Remedies for diarrhœa are a gentle aperient, followed by concentrated tincture of camphor; no fruit, meat, or fatty food of any kind should be eaten at the time, and arrowroot or rice, boiled in milk and water until the grains are well burst, is exceedingly beneficial. Warmth and rest are essentials. Diarrhœa should never be neglected, for in Egypt and the Sûdân it often leads to dysentery. **Headache** and sunstroke are common in Egypt. Effectual remedies are cold compresses, warm baths, and rest in a shaded room or place. Great care should be taken to protect the head and back of the neck with a good broad-brimmed hat, or cork or pith helmet, and in making long excursions a long thin pad of *khâki*, tied inside the coat or dress in such a way that it lies along the upper part of the spine, has been found very beneficial. The nape of the neck should always be covered when walking or riding in the sun, even comparatively early in the day, for the sun's rays are powerful, and many severe headaches have been caused by their striking the head and neck horizontally or diagonally. A **sprained ankle** should be treated in the usual way, *i.e.*, the sufferer must take rest, and keep his foot in wet bandages. Shoes with stout soles, low heels, and fairly wide welts form the best footgear to wear when clambering over the ruins of ancient temples and

sites; it is in such places that the ankle is often sprained. **Ophthalmia** has always been common in Egypt, a fact which is proved by the large numbers of natives who are deprived of the sight of one or both eyes. It is produced by many causes, and is seriously aggravated by dust and flies and dirt of every kind, and by the glare of the sun. When remedies are promptly applied this disease is not alarming in its progress. Fortunately good medical aid can now be obtained in all the large towns and cities of Egypt, and the sufferer is recommended to place himself in competent hands as soon as ophthalmia attacks him. **Tinted spectacles** may be often worn with great comfort and advantage. When travelling from place to place in Upper Egypt a small pocket medicine case will be found very useful. In selecting the medicines to stock it the traveller should before leaving home consult his own medical adviser, who, knowing his patient's constitution, will take care that the remedies for his individual ailments shall be included in the selection. Cases of the kind are inexpensive and most useful, especially those which have vulcanite bottles with screw caps. Each individual will, of course, have a good idea of the medicines which he most needs, but the following will be generally useful:—Warburg's tincture and quinine for fever; bicarbonate of soda, ginger, bismuth, for stomachic troubles; *cascara sagrada*, and some aperient salt, chlorodyne, and a small quantity of tincture of camphor or of opium, for diarrhœa, and ipecacuanha wine for dysentery; a roll of sticking plaster, a roll of *heftband*, vaseline, lanoline, and cold cream; boracic acid and a preparation of zinc to make lotions for the eyes; a powder made of boracic acid and zinc, or something similar, for abrasions and chafings from riding, etc.; a pair of scissors and a clinical thermometer in a metal screw case; ammonia for treating the bites of gnats, mosquitoes, and scorpions; carbolic acid soap of 5 and 10 per cent. strengths; eau de Cologne, and an emergency flask of liqueur brandy.

(13) **Passengers' Baggage Insurance.** — Travellers using Tickets issued by Thos. Cook & Son can have their personal effects insured on payment of a small premium. This insurance covers the articles specified by sea and land in all places and situations against the risk of their being lost, theft, and pilfering, and against the risk of damage by fire or sea-water but subject to the conditions stated. Insurances can be effected for amounts of £20 and upwards. Jewellery, if not placed in the registered baggage, can be covered by the

insurance, but each article must be separately mentioned and separately valued. Full particulars can be obtained at any of the Offices of Thos. Cook & Son.

(14) The Climate and Health Resorts of Egypt.

The wonderful **climate** of Egypt is due entirely to the geographical situation of the country. A glance at a map of the two Egypts shows that the climate of Lower Egypt, *i.e.*, the Delta, must, on account of its proximity to the Mediterranean Sea, and the arms of the Nile and the large canals which flow from them, be different from that of Upper Egypt, *i.e.*, the Nile Valley between Cairo and Aswân, which has the vast Libyan Desert on the one side and the Arabian or Eastern Desert on the other. The most northerly cities and towns in the Delta have the usual sea-side climate which the traveller expects to find in that latitude, with the customary warmth and humidity at night; but the cities and towns in Upper Egypt enjoy a much drier climate both by day and by night. In certain parts of the Delta, where practically whole districts are covered with growing crops which are frequently irrigated, and even in the Fayyûm, the temperature drops considerably at sunset, and continues comparatively low through the night, and the air contains much moisture. Beyond all doubt, the climate of Egypt as a whole deserves the highest praise which can be given to it: for dryness it is nearly unparalleled, and the regular and unvarying warmth and sunshine combined make the country a health resort in the truest sense of the word. It should be distinctly understood that the sick and delicate need medical advice in selecting the sites which will be the most beneficial for their ailments, and care should be taken that the advice comes from a physician who has a practical, first-hand knowledge of the country and of the climatic peculiarities which are characteristic of its most popular health resorts.

The **wind** in Egypt usually blows from the north or north-west, but in the winter it often comes from the south-west, and is at times extremely cold. In the late spring there blows a wind from the south-west which is commonly known as

Khamsîn,* *i.e.*, "Fifty," because it blows at intervals during a period of 50 days. Sometimes it blows with terrific violence, and brings with it a mass of sand which it has picked up in the deserts it has crossed, and for heat its blast is like the breath of a furnace; fortunately it only blows for about a couple of days at a time. **Rain** falls oftener in Cairo and Alexandria than formerly, a fact which has been attributed by some to the increased area of land which is irrigated. The total rainfall at Cairo is about 2 inches, and at Alexandria it is much greater; at the latter place it was 12·81 inches in 1897; 12·31 inches in 1898; 9·67 inches in 1899; 7·87 inches in 1900; 7·62 inches in 1901; and 10·13 inches in 1902. In recent years heavy rains have fallen in Upper Egypt during the winter; but, speaking generally, very little rain falls at Aswân and Luxor. It is, however, a mistake to declare that it never rains in Upper Egypt. **Dew** is heavy in all places where crops grow and in Cairo, but the further south we go the less dew will be met with until we reach Aswân, where there is practically none. **Temperature:** The coldest time of the day is a little before sunrise, and the hottest about 3 p.m.; it is colder in fields where crops are growing than in the desert, and in Upper Egypt 2° or 3° of frost in the fields are not uncommon in the winter. In March and April the temperature at Cairo is about 80°; a little later it rises from 10° to 15°, and in winter it falls to about 65° or 60°. The mean annual temperature at Cairo is 70°; the mean summer temperature is 85°; and the mean winter temperature about 58°. The greatest heat in summer is about 125° in the shade. The greatest difference in the temperature during the day takes place at Aswân and equals about 30°.

The Tables given below were drawn up by Capt. H. G. Lyons in 1906; but if they be compared with those published in the ALMANACK issued by the Survey Department year by year since that date, it will be seen that the variations are very slight, and that for all practical purposes they are unimportant.

* The Arabs who speak correctly do not say *Khamsîn*, but *Khamâsîn*, which is really the vulgar plural of *Khamsîn*, *i.e.*, "fifty." The proper word for the period here referred to is *Khamsûn*, which does not necessarily contain 50 days; there may be a few days more or a few days less in it, according to the weather of the particular year. The word *Khamsîn* also means "Pentecost," but the period of the Jewish year which corresponds to it is called by the Arabs *Khamsinât*, and the last day of it is *Al-Khamsîn*.

Mean Monthly Temperature (Centigrade).
(From Tables compiled by Capt. H. Lyons, R.E.)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec
Cairo	12·3	13·8	16·9	21·2	24·8	27·7	28·6	28·1	25·6	23·6	18·9	14·8
Gîza	10·9	13·0	15·2	19·3	22·7	24·8	25·7	26·1	24·0	22·0	17·1	12·9
Beni Suwêf ..	12·6	14·1	16·8	20·8	24·9	26·9	28·1	27·2	25·3	23·2	18·5	15·0
Asyût	10·6	13·5	16·9	21·9	25·8	28·7	29·9	29·5	26·6	23·6	17·8	13·8
Luxor	15·4	17·4	21·1	24·1	..	..	..	..	..	..	..	16·9
Aswân (Rest Camp)	16·8	17·5	20·9	26·6	30·3	33·3	33·9	32·0	30·4	28·6	23·6	18·2
Aswân (Reservoir)	14·5	18·5	21·4	26·1	30·0	32·4	32·7	32·4	30·3	27·9	21·7	17·0

Mean Maximum Temperature (Centigrade).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec
Cairo	18·2	21·1	24·2	28·6	32·6	35·1	36·1	34·9	32·2	30·1	24·3	20·2
Gîza	19·1	22·2	24·5	28·8	32·2	34·2	34·9	34·9	32·5	30·7	25·6	21·3
Beni Suwêf ..	19·5	20·9	24·2	28·3	32·5	34·3	34·9	33·4	30·8	29·1	24·8	21·5
Asyût	20·2	24·7	28·4	32·5	36·6	37·7	37·9	37·8	34·0	31·3	27·7	22·5
Luxor	23·1	25·5	29·4	32·1	..	..	..	..	..	..	31·1	24·3
Aswân (Rest Camp)	23·8	24·2	28·9	33·6	39·3	42·3	42·3	39·2	37·6	35·8	29·6	24·9
Aswân (Reservoir)	22·9	28·0	31·1	36·2	39·1	41·4	41·5	41·9	39·7	38·8	31·7	27·3

Mean Minimum Temperature (Centigrade).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec
Cairo	6·9	8·2	9·9	12·8	15·9	18·5	20·8	20·8	18·9	17·1	12·3	8·8
Gîza	6·3	7·2	9·0	11·9	14·6	17·4	19·0	20·1	18·2	16·5	11·9	8·2
Beni Suwêf ..	5·8	7·2	9·5	13·2	17·3	19·6	21·3	21·0	19·7	17·3	12·2	8·5
Asyût	4·7	6·7	9·4	14·0	18·5	21·2	22·6	22·9	20·7	17·4	10·9	7·0
Luxor	7·6	9·3	12·7	16·1	..	..	..	..	..	..	12·9	9·6
Aswân (Rest Camp)	9·9	10·7	12·9	18·7	21·3	24·3	25·5	24·8	23·3	21·2	17·5	11·5
Aswân (Reservoir)	9·0	11·5	13·8	18·3	22·0	24·2	24·7	25·0	23·0	20·7	15·3	11·4

Dryness of the air: No matter how hot the weather, the air of Egypt is always light, fresh, and invigorating, and in places which are quite away from cultivated lands only a minute amount of moisture exists in it. Another important characteristic of the Egyptian climate is its uniformity, and in this respect it probably is unique. How long this will last it is hard to say, for there is no doubt that the large surface of water in the Suez Canal, and the extensive irrigation works which are increasing yearly, to say nothing of the enormous lake which has been formed by the waters held up by the Aswân Dam, have produced local disturbances of the atmosphere, and contributed in some places to make the winters less dry and the summers less hot. The evenings and the mornings are beautifully cool, and the thermometer does not often fall below 40° in Cairo. The average temperature of Lower Egypt ranges between 75° and 90° in summer, and between 45° and 60° in winter, and that of Upper Egypt between 90° and 100° in summer, and between 60° and 70° in winter.

MEAN RELATIVE HUMIDITY (PER CENT.).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cairo	69	65	59	51	47	47	50	56	62	66	66	70
Gîza.. ..	82	77	70	63	57	57	63	67	73	75	75	81
Asyût ..	69	66	56	40	30	31	36	42	56	62	69	69
Aswân ..	51	37	32	30	25	24	22	23	30	39	34	51

RELATIVE HUMIDITY (8 OR 9 A.M.).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cairo ..	87	84	74	68	65	64	73	76	80	80	77	86
Gîza.. ..	76	68	59	45	36	40	45	48	60	67	72	74
Asyût ..	59	32	24	19	14	18	19	18	27	28	36	63
Aswân ..	58	48	38	34	29	28	27	28	37	42	47	54

RELATIVE HUMIDITY (2 OR 3 P.M.).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Cairo ..	47	40	34	27	24	25	27	32	39	42	45	49
Gîza.. ..	51	42	39	36	30	33	36	36	44	52	44	50
Asyût ..	34	44	24	21	16	17	22	22	31	38	48	46
Aswân ..	30	22	17	17	15	15	13	13	18	22	25	30

The principal **health resorts** of Egypt are Alexandria, Cairo, Menȧ House and Helwân, both near Cairo, Luxor, and Aswân.

Alexandria (*see* p. 119) possesses a healthy sea-shore climate, which is on the whole drier than that of Cairo. The mean rainfall is about 8·57 inches, and the mean temperature 69° F. = 20·5° C.; the mean winter temperature is 60° F., and, generally speaking, Alexandria is warmer by night than Cairo. The prevailing wind blows from the north in summer, and from the north-west in winter. Close to Alexandria is Ramleh, which is much frequented by tourists and residents who wish to live close to the sea.

MEAN TEMPERATURE (CENTIGRADE).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Alexandria ..	14·2	15·5	17·0	19·2	21·9	24·3	26·2	26·9	25·9	24·1	19·9	16·2
Port Sa'îd ..	14·0	15·3	16·9	19·1	22·0	24·7	27·0	27·6	26·5	24·9	20·3	16·1
Isma'îlîya ..	13·2	15·2	17·5	20·8	23·9	26·5	28·5	28·3	26·1	23·8	18·7	15·1
Suez	13·6	15·5	18·0	21·7	25·3	27·6	29·4	29·2	27·1	24·8	19·1	15·4

Cairo (*see* p. 141) possesses a dry and salubrious climate in winter, and the city is thronged at that time with seekers after health and pleasure. It is the headquarters of the Egyptian Government, and the visitor may, if he pleases, amuse and interest himself from morning to night for some

weeks. The climate is not so dry as formerly, and in recent years the cold in winter has become sufficiently intense to necessitate the building of fire-grates in dwelling and other houses. In December, January, and February, the mornings and evenings are often very cold. Rain falls on from 25 to 30 days, and the sky is often overcast by clouds which are blown over the city by a strong wind from the north-west. In April the Khamsîn wind makes Cairo hot and stifling, and in the summer the heat and moisture together make it close.

Each year that passes brings with it a considerable improvement in Cairo as a health resort, and the authorities spare neither pains nor expense in the carrying out of systems of drainage and other sanitary works, and in the cleansing of all parts of the city. The modern hotels are large, commodious buildings, which have been planned with due regard to the comfort, well-being, and health of European and American travellers, and the most approved methods of ventilation and sanitation have been adopted in them. The regular sweeping, cleansing, and watering of the streets, and the abolition of several old, narrow streets of houses, have made the European quarter of Cairo, in which the hotels are situated, an extremely pleasant place in which to live. The native quarters of the city of Cairo also have for years past occupied the serious attention of the Government, and the Egyptian is no longer allowed to live amid dust and dirt as formerly. Many of the streets in the native quarters of the city are now paved with asphalt, some £E.30,000 having already been spent in this work alone; and £E.11,000 was spent in making the new thoroughfare called the "Boulevard Abbâs" in 1905. At the present time more than one-half of the roads and streets in Cairo are paved. In 1902 it was decided to devote a sum of £E.10,000 a year to establish free taps in Cairo from which the poorer classes could obtain pure water, and the Government voted £E.20,000 to enable the Water Company to improve the quality and increase the supply. That such measures tend to promote the general health of the whole city is too obvious to need mention, and when all the schemes now under discussion have been carried out, Cairo will be as healthy a dwelling-place as any large Oriental city can be.

Menà House was built by Mr. Locke-King, and is situated on the skirt of the Libyan Desert, near the Great Pyramid of Cheops, about eight miles from Cairo. The air here is cleaner,

drier, and fresher than at Cairo, but the cold at night in December, January, and February is sometimes unpleasant; in November, and in the latter part of March and April, the weather is perfect. In addition to health a variety of amusements may be obtained here, and Cairo is easily reached by means of the electric tramway.

Helwân (*see* p. 218) is a small town which lies on the right or east bank of the Nile, about 16 miles to the south of Cairo, and contained in 1907 about 4,119 inhabitants. This town, which stands about halfway between the river and the irrigated lands, owes its importance entirely to the sulphur and salt springs which come to the surface here in great abundance; the water has a temperature of 91°, and the percentage of sulphur and salt held in solution is very large. These sulphur springs are thought by some to have been famous in very ancient days, and their healing properties were probably well known to those who gave to the place where they rise the name of "Helwân." Fresh water is brought into the town from the Nile, about three miles distant. The air of Helwân is clean and free from sand and dust, and the restfulness of the place is very grateful; from the middle of November to the middle of April the climate is most beneficial for the sick and suffering. The baths which have been built during the last few years leave little to be desired, and it is not to be wondered at that it has recently become the fashion for the inhabitants of Cairo to resort there. The springs have been found specially beneficial in the various forms of skin disease to which residents in so hot a climate are subject. The Khedive TAWFÎḲ PÂSHÂ built a little palace there, and his luxurious bath-house may still be inspected. Helwân is easily reached by trains which run frequently, the journey lasting from 30 to 45 minutes. The **Observatory** at Helwân (lat. 29° 51′ 33·5″ N., long. 31° 20′ 30·2″ E., altitude 115 metres) is open to visitors from 3 to 5 p.m. daily, and at other hours by permission of the Superintendent. A Reynolds' 30-inch reflector has recently been mounted there, and a "comparator," for determining with precision the length of bars by comparing them with the standard 4-metre compound bar of platinum and brass, has been erected in a double-walled building.

Luxor (*see* p. 384 *ff.*) lies on the right or east bank of the Nile, about 450 miles to the south of Cairo, and can be easily and comfortably reached both by boat and by train. The wind is far less strong at Luxor than at

the northern health resorts, the climate is more equable, the air is drier, sunshine is constant, rain falls very rarely, and the regular warmth is extremely grateful to delicate folk. From December to March it forms a most agreeable place to live in, and the Luxor Hotel is well provided with means for recreation, besides being most comfortable. There is a church in the hotel grounds, and an English clergyman ministers during the winter. The temples of Luxor and Karnak on the east bank, and the temple of Madînat Habu, the Ramesseum, the Tombs of the Kings, the great Theban Necropolis, etc., on the west bank, form objects of the deepest interest, and afford means of occupation, to say nothing of instruction, which are well-nigh endless. Archæological investigations of a most comprehensive character are being carried out by representatives of the Egyptian and European Governments, and visitors to Luxor are in the fortunate position of seeing and hearing of the most recent discoveries in Egyptology as soon as they are made.

Aswân (*see* p. 489 *ff.*), at the foot of the First Cataract, is about 583 miles south of Cairo, and, like Luxor, may be easily and comfortably reached by boat and train. It is the driest and warmest health resort in Egypt, and as rain is rare, and there is no dew, the place forms an ideal abode for invalids and others whose comfort, or may be their very existence, demands a high temperature by day and warm, dry nights. The west wind passes over hundreds of miles of blazing desert, and is almost as dry as it is possible to be, and the north wind, owing to the little vegetation near the town, is also extremely dry, and to these causes must be attributed the wonderful crispness and bracing quality of the air, which is so beneficial to every visitor. In recent years large, commodious, and comfortable hotels have been built, one on the Island of Elephantine, one at the southern end of the town, and one close to the foot of the Cataract, and every attention is paid to cleanliness, sanitation, and drinking water, and three and a half months in winter, *i.e.*, from the last week in November to the second or third week in March, may be passed most pleasantly at Aswân. In January the mornings are cold, but this hardly matters to those who have not to leave their hotels early; care should be taken by boating parties to provide warm wraps if they intend to remain on the river after sunset, both for comfort's sake and for the prevention of chills.

The antiquarian attractions of Aswân are very considerable, and many weeks may be profitably spent in visiting the various sites of interest in its neighbourhood. The beautiful little Island of Philæ, with its graceful temples, will afford occupation and enjoyment for many days, for the attractions of its most characteristic sculptures and pillars are well-nigh inexhaustible. The picturesque situation of the island, fixed as it is amid wild and weird scenery, is fascinating, and few of those who take the trouble to visit it several times will have difficulty in understanding how ideas of admiration and awe came to grow up in the minds of travellers, both native and foreign, as they stood and looked upon the sanctuaries which were made thrice holy by the shrines of Osiris and Isis of Philæ. All the little islands in the cataract to the north of the Aswân Dam are worth several visits, and the inscriptions on the rocks, which are found everywhere on them, are of great interest. One or two expeditions may be made to the ruins of the Coptic monastery on the west bank of the cataract, and the tombs of the VIth and XIIth dynasties, which are on the same side of the river, and run in terraces along the great hill immediately opposite Aswân, are among the most attractive of their class. Delightful rides may be taken near the old granite quarries, and in the desert further to the east, and the marks still remaining of the methods by which the blocks were got out of the quarries by the ancient Egyptians, to say nothing of the unfinished colossal statues and obelisk, afford much material for study. Many visitors take pleasure in tracing out the old road from Aswân to Philæ, and in examining the remains of the great wall which was built to protect the settlements and forts in the cataract from the attacks of the tribes of the Eastern Desert; there are also numerous inscriptions to be seen on the rocks by the way. To many visitors the camp of the Bisharîn is a source of great amusement, and now that the bâzârs are once more becoming filled with the products of the handiwork of the tribes of the Southern Sûdân, they are of considerable interest. The sense of physical well-being, which is obtained by riding in the desert in this delightful place, is rarely forgotten by those who have experienced it. Those who are attracted by desert scenery will derive great pleasure from a journey to Darâw, along the old caravan road which runs due north of Aswân. Even in fairly hot weather the air is light and relatively cool, and very interesting mirages are frequently seen.

(15) The Voyage up the Nile.

The method of ascending the Nile best suited to the majority of travellers is by the **Tourist Steamer,** one or more of which leave Cairo every week during the season for Aswân, connecting with other services from Aswân (Shallâl) to Wâdî Ḥalfah. The daily itinerary of each of these services is given on pp. 349–351.

These first-class Tourist Steamers are constructed of the best materials, with every known device and improvement conducive to the personal comfort and convenience of passengers. The cabins are large and furnished for long voyages, and in no case contain more than two beds, while many have but one. The decks are fitted up like the verandahs of a country cottage, the upper deck having a drawing-room and a large observation saloon, from the windows of which the varied scenes of the life of the Nile may be viewed; on this deck there are also self-contained suites of sitting and bed-rooms, with private baths with hot and cold water supplies and every toilet convenience. The dining saloons, from which uninterrupted views are obtained, are large and airy, and the table is excellent and well served. Every steamer has a reading saloon with a library of interesting works on Egypt, and concerts, dances, and entertainments are frequent. All the saloons are heated by electricity. In short, a Nile Tourist Steamer means river travelling under the most favourable auspices, in the most comfortable quarters, on a floating hotel with a good and generous table, with pleasant company and pleasant surroundings. The whole of the most interesting sights on the Nile — temples, ancient remains, bâzârs, native life—are brought within the compass of the traveller with a minimum expenditure of wear and tear.

The charge for passage includes all outgoings on donkeys, boats, guides and so forth, with nothing more to pay but an optional *douceur* to the servants, as in all steamboat arrangements, and the inevitable bakshîsh—a few piastres—to the donkey boys.

The voyage from Cairo to Aswân and back occupies twenty days, and from Aswân to Wâdî Ḥalfah and back seven days.

Those who desire to make the voyage in the privacy of their own family or party may travel by dahabiyyah or by private steamer.

The **Dahabiyyah** is the most ancient style of boat known on the Nile. Although greatly modified and improved according to modern ideas, it still conforms in many respects to the type originally in use under the Pharaohs. It represents the most luxurious, but most expensive, means of travelling on the Nile. The drawback to the use of the sailing dahabiyyah is the chance of encountering contrary winds, but this may be entirely obviated by the employment of steam tugs, a number of which are always available.

The **Private Steamer** is in great favour with those to whom time is of importance, but who yet desire to travel as a private party. These private steamers, like the sailing dahabiyyahs, are of various sizes, adapted to the requirements of large or small parties. Both are most luxurious in their appointments.

For fuller information, *see* Thos. Cook & Son's annual programme of arrangements for visiting Egypt, the Nile and Soudan, issued gratuitously on application.

N.B.—A Government tax is levied on all travellers who wish to visit the **monuments**, temples, etc., in Egypt, such tax to be devoted to the maintenance and preservation of the monuments, temples, etc.; therefore all travellers by steamers and dahabiyyahs will have to provide themselves, before leaving for the Nile voyage, with the necessary card admitting them to inspect the monuments.

Tickets to visit Antiquities are available from July 1st for 12 months.

A. For the whole of Egypt ... 120 piastres (24*s.* 8*d.*).
B. Gîzah Pyramids, ascent or entrance, each 10 piastres.
C. Ṣaḳḳârah ... ... 5 piastres.
Obtainable of Messrs. Thos. Cook & Son, at the Egyptian Museum at Cairo, and of the officials at Luxor, Gîzah and Ṣaḳḳârah.

(16) **Baḳshîsh**, or **Bakhshîsh.***—This word, which is the equivalent of "gratuity," "tip," or "*pourboire*," literally means a "gift," and it will probably be the first word the traveller will hear when he lands on Egyptian soil, and the last as he leaves it. Those who render him the smallest service will demand baḳshîsh, as likewise will those who render him

* بقشيش, *baḳshîsh*, plur., بقاشيش, *baḳashîsh*. The Persian form of the word is *Bakhshîsh*.

no service at all, but who stand about, stare at him, and obstruct the way; the half-naked child lying in the dust will cry *'shish* after him, the older children will shout the word at him in chorus, and labourers will stop their work and ask for bakshîsh on the chance that they may get something given to them for nothing. Formerly in Egypt highly placed officials took bakshîsh openly, but as they received no regular salary this is not to be wondered at; in recent years this abuse has greatly diminished, and bakshîsh is now only demanded by those who wish to be overpaid for their services, and by beggars. So far as possible the traveller should agree on the price of every service beforehand, but he must remember that even when he has paid the sum agreed upon the native will ask for bakshîsh. **So long as travellers will overpay the Egyptians for their services, so long will the cry for bakshîsh be a nuisance to everybody.** No hard-and-fast rule can be laid down, for the simple reason that the generosity of benevolent men and women which finds expression in indiscriminate almsgiving and charity, even when known to be misapplied, refuses to be curbed. It must, however, be pointed out that those who bestow gifts on an unreasonably large scale make travelling difficult for people of moderate means, and for some wholly impossible. **If each traveller would make it a rule never to give bakshîsh, except for some positive service rendered, worth the sum given, he would confer a boon upon the people and upon future travellers.** In Egypt, as elsewhere, the traveller who pays best will always be waited upon first, and the more bakshîsh the native is given the more he will expect; each season finds him more and more dissatisfied with the bakshîsh with which he would have been quite content a few years ago. A bargain once made should be adhered to, for when once the native realizes that his employer intends to stand firm, he rarely gives further trouble. Among claimants for bakshîsh must be mentioned the professional beggars, who are numerous; many of these are impostors. On the other hand many of the maimed, the halt, the blind, and the aged *ought to be helped*, and a few piastres judiciously bestowed often smooth the way of those who, through an accident, or sickness, or no fault of their own, have fallen on evil times. In country districts the traveller will save himself a good deal of trouble if he will provide himself with a bag of copper *paras* (40 = 1 piastre tariff) or nickel millims

(10 = 1 piastre tariff) before leaving Cairo, for the most urgent wants of the deserving beggars can be supplied with a few of these, and the danger of demoralizing the native is reduced to a minimum.

(17) **The Traveller in Egypt.**—The traveller who visits Egypt for the first time will certainly be delighted with the country, but it is probable that he will not admire the natives with whom he will come in contact until he knows them fairly well. The Egyptians in general, until quite recently, have, like other Muḥammadans, never been accustomed to travel, and they look upon those who wander from country to country as beings who are possessed of restless though harmless devils. Like their more fanatical co-religionists and kinsmen in Mesopotamia, they believe that the ancient Egyptians were idolaters and very wicked people, and that God destroyed them, and blotted out their kingdoms and buried their palaces and temples, because of their iniquity. That anyone should wish to make excavations for the love of learning or the advancement of science is more than they can understand, and the older generation regard all those who do work of this kind as wicked men. "How do you dare to dig up what God hath buried?" said a native to the writer some years ago, and even when it was pointed out to him that the smallest object could not be dug up "unless God willed it," he was discontented with the explanation. Egyptians of the "old school," and especially those who have been much in contact with the orthodox Turkish official, still believe that the "Frangî," or European traveller, has some ulterior motive in going about the country, and nothing will induce them to realize that the love of travel, and the wish to see new cities and new peoples, will draw men from their homes into remote countries. The younger generation, though not generally fanatical, is as sceptical about the traveller's motives as his elders, only, seeing that money is to be made out of the "Frangî," he conceals his doubts, and devotes himself to making money out of him. The Egyptian knows that the possession of money will enable him to keep wives, to dress well, and to gratify his desires for pleasure; he therefore loses no opportunity of getting money from the stranger, whom he believes to possess an inexhaustible supply of gold and silver. Speaking generally, the traveller has very little opportunity of seeing the better class of Egyptians, and he must by no means judge the whole nation by those who minister to his wants in the great cities. The Egyptian, the worst side of whose

character has not been developed by cupidity, is a very estimable individual. He is proud of his religion, and is tolerant to a remarkable degree, but it must never be forgotten that the strictest Muḥammadans despise the Christian faith in their hearts, although Christians are everywhere treated with civility. As the result of their religion, the Egyptians are benevolent and charitable to the poor, and they are extremely hospitable; they are cheerful, affable, easily amused, and many are temperate and frugal. They love their homes and their native villages, and when they are compelled by the exigencies of military service to leave them, large numbers of young men regularly transmit money to their parents and relatives to keep them from want. It has been wisely remarked by Lane that the Egyptian has no gratitude in his composition, and the traveller will discover for himself that even after he has paid a man lavishly for trivial services he will be met with the demand for baḳshîsh. Partly through climatic influences, partly through constitution, and partly through his intense fatalism, the average Egyptian is lazy, and he will never do more than he is absolutely compelled to do. Truthfulness is very rare in modern Egypt, but this is in many cases only the natural result of loose and inaccurate thinking. The views of the Egyptian about his womankind are not of an exalted character, but he has only himself to thank for this so long as he adheres to the abominable system of divorce which is common throughout the country. In judging the Egyptian the traveller must make allowance for the centuries of oppression and misery through which he has passed, and remember that in many cases he should be treated with a kind but firm hand, as if he were a child. He is quick to appreciate just and humane treatment. And he has grasped the idea of honour and the trust that may be placed in an Englishman's word or promise which generations of English travellers in Egypt have left behind them. The influences which have been brought to bear upon him in recent years have already produced important results; but unless he makes a radical change in his domestic arrangements, he will never be able to employ to the best advantage the benefits which the civilization of the West has brought to his land. In exceptional cases Europeans have made lasting friendships with Egyptians, but such friendships have not included their families, for the all-sufficient reason that women are never allowed to form friendships of this kind. Marriage between Europeans and

natives is to be strongly deprecated. The most potent factor in the change which is now passing over Egypt is the progress of female education in Egypt. Formerly parents sent their daughters to school reluctantly, and took them away early, and to encourage the education of girls it was necessary to admit many to the schools free. Free education has now been abolished to all intents and purposes, and yet the demand for private schools for girls has greatly increased. The advance in the education of boys has stimulated female education, for the younger generation are beginning to demand that their wives should possess some qualifications other than those which can be secured in the seclusion of the *ḥarîm*. Where education has made progress the age of marriage has risen, and thus it seems that girls are allowed to remain longer at school than was the custom formerly.

The abolition of the use of the *kurbâsh*, *i.e.*, of corporal punishment, by Lord Dufferin, early in 1883, has had effects which were not contemplated by him. **As soon as the whip was abolished the people refused to work,** and Lord Cromer said that the period which followed its abolition "caused him greater anxiety than any other" during his lengthened Egyptian experience. Another result was that **life and property became insecure,** and Nubar Pâshâ was obliged to appoint "Commissions of Brigandage," that is, to introduce martial law. The Egyptian has also learned that no one can be punished for a crime unless he is proved to be guilty, and that proof of guilt which will satisfy the law courts is hard to get. The result has been that large numbers of guilty people have escaped punishment, and throughout the country the people have little respect for the law. The inability of the governors to use the whip is the cause of the present state of unrest among a certain class of Egyptians, and it is clear that only corporal punishment will reduce this class to order and obedience.

PART I.

THE LAND OF EGYPT.

Geographical Position and Area, Geology, the Fayyûm, the Natron Lakes, the Lakes in the Delta, the Oases, Natural History, Ancient and Modern Divisions, the White Nile, the Nile, the Blue Nile, the Atbarâ, the Upper Nile, the Cataracts, Irrigation, the Corvée, the Nile Barrages, the Government, Revenue, Trade, Debt, etc., the Modern Egyptians, Narcotics and Amusements.

I.—GEOGRAPHICAL POSITION, GEOLOGY, ETC.

Egypt lies in the north-east corner of the continent of Africa, and is bounded by the Mediterranean Sea on the north, by the Sûdân on the south, by Southern Syria and the Eastern Desert and Red Sea on the east, and by the Libyan Desert on the west. The **Limits of Egypt** have varied considerably at different periods, but, speaking generally, we may at the present time consider Egypt to be that portion of the Valley of the Nile which lies between the Mediterranean Sea and the Island of Faras, which is the most northerly point of the Sûdân Government, and is 20 miles north of Wâdî Ḥalfah, *i.e.*, between 22° and 31° 30′ north latitude. The 22nd parallel crosses the Nile at Gabal Saḥâbah, 8 miles from the Camp of Wâdî Ḥalfah. The Camp is 802 miles from Cairo by river, and Cairo is 161 miles from the mouth of the Rosetta Arm of the Nile, and 110 miles from the lighthouse of Bûrlûs (Borollos). Its limit on the east is a point slightly to the east of Al-'Arîsh, the ancient Rhinocolura, and the frontier which divides Egypt from Turkey in Asia is marked by a line drawn directly from Al-'Arîsh to the head of the Gulf of 'Akabah. The **Peninsula of Sinai** forms now, as it has for the last 6,000 years, a portion of Egypt. On the west the frontier is represented by a line drawn from the Gulf of Sollûm, due south, to a point a little to the south-west of the Oasis of Sîwah; from this point it proceeds in a south-easterly direction to the

22nd parallel of north latitude near Wâdî Ḥalfah. It must, however, never be forgotten that Egypt proper in reality consists only of the River Nile and of the land which is watered by the main stream and its branches, and this being so, the deserts which are included within the limits given above may be considered to possess significance from a political point of view only. The matter was well summed up by the Greek historian Herodotus,* who declared (Book II, §§ 17, 18) that "the whole country inhabited by Egyptians is Egypt, as that inhabited by Cilicians is Cilicia, and that by Assyrians, Assyria." He further gave it in his opinion that the country of Egypt comprised all the land which was watered by the Nile, and stated that this opinion was supported by Divine authority. It appears that certain peoples who lived in the Libyan Desert close to the Delta wished to free themselves from the restriction of not eating cow's flesh which had been imposed on them as if they had been Egyptians, giving as the reasons that they lived out of the Delta, and that they did not speak the Egyptian language. When the question was referred to Ammon, the god replied that "all the country which the Nile irrigated was Egypt, and that all these were Egyptians who dwelt below (*i.e.*, to the north of) the city of Elephantine, and drank of that river." As the Nile during the inundation flooded the country "said to belong to Libya and Arabia to the extent of about two days' journey on either side, more or less," the pertinence of the oracle of Ammon is obvious, and it is clear that the ancients considered Egypt to be the country which lay between Syene, the modern Aswân, and the Mediterranean Sea.

The total **area of Egypt** is said to be between 400,000 and 430,000 square miles, including the deserts on each side of the Nile; its length is about 620 miles and its breadth about 600 miles. The land covered by the Nile deposit was about seven and a quarter million acres, but since the building of the Aswân Dam nearly two million more acres are now irrigated. Strictly speaking, the area of Egypt varied with the annual inundation of the Nile, *i.e.*, it was enlarged during a "high" Nile, and contracted during a "low" one; in recent years, however, by reason of the improved means of irrigation, the area of Egypt has increased year by year, for more and more waste land has been gradually brought into cultivation,

* He was born about 480 B.C. and died about 400 B.C.

and there is every reason to believe that the absorption of the desert will go steadily on for some time to come. In 1888 the area of the unirrigated land was 269,110 acres, but in 1905, in spite of the river levels in June and July being the worst ever recorded, the area was only 45,000 acres. Since that time the area of the unirrigated land has greatly decreased, and the draining operations in the Delta have resulted in the reclamation of much land, which in process of time will become very valuable. In form Egypt somewhat resembles a lotus, the Nile from Cairo to Aswân representing the stem, and the Delta the flower.

The **sea-coast** of the Delta is very flat and sandy, and no rocks are found until we reach the district to the west of Alexandria. In the Gulf of Suez and the Gulf of 'Aḳabah in many places the sea washes the feet of the mountains that stand on their shores. In the Red Sea the shore is usually sandy, but in many places pebbles and the detritus of stones are found. The **Ports** of Egypt are Alexandria, Port Sa'îd and Suez. On the Mediterranean are Sollûm and Matrûh; on the Red Sea are Ḳuṣêr and Safâgah, etc.; and in the Gulf of Suez, Ṭôr, Abu Żanîmah, Gamîsah, Burgadah, etc. On each side of the Nile Valley is a great and terrible desert. The **Libyan** or **Western Desert** is a vast plateau of hard limestone on which nothing grows, but about four days' journey from the Nile a series of hollows is found in it where springs of water (some warm) rise out of their depths, and it is possible for man and beast to live in them. These hollows form the **Oases** (*see* pp. 252, 257–286). The **Arabian** or **Eastern Desert** contains high mountains, *e.g.*, **Gabal Shayib** (7,200 feet), **Gabal Hamata** (6,500 feet), **Gabal Shandîb** (6,300 feet), and large stony plateaux furrowed with wide and deep ravines called *khor* and *wâdî*. Wells and springs are found in many places, and patches of stunted shrubs which are nourished by subterranean springs.

Geology.—The **soil of Egypt** consists of a very thick layer of sedimentary deposits of cretaceous and tertiary ages, which have been laid down upon the uneven and eroded surface of a great mass of crystalline rocks which come to the surface along the edge of Egypt on the east, and cover large areas in the Eastern Desert. The depth of these **sedimentary deposits** has formed the subject of much discussion, and boring experiments were made by Professor Judd, F.R.S., for the Royal Society, with the view of finding out where the mud ended and

the rock on which Egypt rests began; at Zakâzîk in the Delta the borers were worked down to a depth of 345 feet, but the rock was not reached. The layer of mud and sand which forms the characteristic soil of Egypt came to an end at a depth of about 110 feet, and what was found below this depth consisted of coarse sand, clay, and shingle. The thickness of the mud soil of Egypt varies at different places. Thus at Bani Suwêf it is only about 36 feet deep, and at Sûhâk it is about 56½ feet; both these places are in the Nile Valley proper. At Banhâ and at Kalyûb it is 56½ feet and 40 feet respectively; both these places are in the Delta. Up to the present the greatest depth of Nile mud has been found to be at Zakâzîk, and here, as said above, it is about 110 feet deep.

To-day the Nile is depositing mud on its bed at the rate of nearly 4 inches in a century. This statement agrees with that of Capt. H. G. Lyons, who says: The resultant effect of this deposition during flood and erosion during the falling stage of the river has been to raise the river-bed between Aswân and Cairo at the average rate of about 10 centimetres per century during the last 2,000 or 3,000 years, and certainly for a much longer period.

The **direction of the Nile Valley** is generally in a north and south direction, and this is due to great earth movements which took place in Miocene times; and the long depression now occupied by the Central African Lakes, the lower area south of Abyssinia, the Red Sea, the Gulfs of Suez and 'Akabah, and the Jordan Valley, is due to extensive fracturing of the earth's crust. The line of this fracture can, in the opinion of Messrs. Willcocks and Lyons, be traced from the Mediterranean Sea nearly to the First Cataract. In late Miocene or early Pliocene times the sea made its way so far south as Asnâ, and in doing so it laid down thick deposits of sand and gravel, and the tributary streams, fed by a rainfall much heavier than that of to-day, brought down masses of broken stony matter from the limestone plateaux and piled them up along the margins of the valley. A rise of the area turned this arm of the sea into a river valley, and the deposit of Nile mud and the formation of cultivable land began.

The **crystalline rocks** begin in latitude 28° N., and form the southern portion of the Sinai Peninsula and the range of hills which border the Gulf of Suez and the Red Sea, and extend as far south as the northern boundary of Abyssinia.

In width they gradually increase, reaching two-thirds of the way to the Nile east of Ḳanâ, while at Aswân, Kalâbshah, and Wâdî Ḥalfah, and at numerous points further south they occur in the Valley of the Nile, forming cataracts and gorges, though often still hidden over large areas east of the Nile by the Nubian sandstone. The crystalline rocks are at base a gneiss, which is overlaid by mica, talc, and chlorite schists, above which is a very thick volcanic series, and into this are intruded a grey hornblendic granite and also later a red granite. The best known of these rocks is the red **hornblendic granite** of Aswân, which was used by the Egyptians of all periods for obelisks, statues, stelae, and temples. Among the rocks of the volcanic series must be mentioned the famous **porphyry,** the quarries of which near the Red Sea were extensively worked in the Roman period. The three places in Egypt and Nubia where the old surface of the crystalline rocks lies nearest to the surface are Aswân, Kalâbshah, and Wâdî Ḥalfah, and here the Nile has made cataracts in forcing its way through them.

The **layer of sandstone** which lies on the crystalline rocks covers nearly the whole of Nubia, and extends so far north as Asnâ, where it is in turn covered over by the clays and limestones of Cretaceous age. It is yellow in colour, and at its base usually becomes a quartz conglomerate; it was quarried chiefly at Ḳartassi in Nubia and at Silsilah in Egypt, and most of the temples in the southern part of Egypt and throughout Nubia are built of it. Above the sandstone in many places lie a large series of green and grey clays, and thick beds of soft white limestone; and above these is a very thick layer of soft **white limestone** which forms the cliffs of the Nile Valley from Luxor to Cairo, and furnishes most of the stone used for building in Egypt.

Another kind of **siliceous sandstone** is found at Gabal Aḥmar, near Cairo; this is, in reality, a shallow water deposit, which has been in many cases cemented into a hard refractory rock by silica; this stone was largely used in building temples in the Delta. On all the above strata thick deposits of sand and gravel were laid down by the sea which, as has already been said, ran up as far as Asnâ in prehistoric times, and subsequently, under the influence of climatic conditions which closely resemble those of our own time, river deposits of dark, sandy mud were laid down at levels which were considerably higher than the deposits of to-day. There is a complete

absence of fossils in the Nubian sandstone. From Abû Simbel northwards the Nile Valley is bounded on the west by a high limestone plateau called Sinn al-Kiddâb, which at this point is about 56 miles from the river, and it gradually approaches the stream until at Aswân it is only 25 miles distant, and at Gabalên it marches with the river. North of Aswân we find two interesting plains, which Sir W. Willcocks calls the "plain of Kom Ombo" and the "plain of Edfû"; these were once ancient Deltas of rivers coming down from the high ranges which skirt the Red Sea. The sands and clays of these belong to an age anterior to the Nile, and are covered with granite and porphyry pebbles brought down from the Red Sea range, and have no affinity with those met with at Aswân, Kalâbshah, and Wâdî Ḥalfah. About five miles to the north of the temple of Kôm Ombo is a good section which illustrates the relative positions and depths of the ancient sandy clay and sand deposits overlaid by the more recent Nile mud. Limestone is first met with at Ar-Raghâmah, a little to the south of Silsilah, and between this place and Victoria N'yanza there is no other limestone in the Nile Valley.

It has been generally supposed that the pass at Gabal Silsilah was an ancient cataract of the Nile, but though the present channel is narrow, yet it is only a branch of the river; the true channel is on the right of the hill in which the quarries are, and is at present buried under mud and silt. The word **Silsilah,** which has become the name of this place, means "chain." The word Silsilah is usually applied to a **cataract** on the Nile, but the common Arabic word for cataract is *shallâl*, the series of rocks being supposed to represent the hollows in the links of the chain. Gabal Silsilah can never have been a cataract, for the Nile deposits and certain shells are met with north and south of the pass at exactly the same level, and no change is experienced until we reach Gabalên, where there is a decided drop in the level of the ancient deposits. It is probable that a great cataract existed at Gabalên at a very remote period—at least, this is what the up-turned and undermined hills at Gabalên suggest. Between Ḳanâ and Cairo the Nile flows between limestone hills; the Londinian formation extends to a point midway between Asyûṭ and Minyâ, where the lower Parisian strata appear on the tops of the plateaux. The upper Londinian strata disappear a little to the north of Minyâ, and

the lower Parisian formation is now generally met with as far as Cairo.

The **Fayyûm** [for the description of the antiquities of the Fayyûm *see* p. 241 ff.], which some have regarded as the first of the **Oases** in the Libyan Desert, is in reality a "deep depression scooped out of the Parisian limestone," the greater part of the bed of which is overlaid with thick belts of salted loams and marls, and upon this Nile mud has been laid down. In connection with the Fayyûm must be mentioned the **Birkat al-Ḳurûn**, *i.e.*, "the Lake of the Horns," a long, narrow lake which lies to the north-west of the Fayyûm province. A great deal has been written about Birkat al-Ḳurûn, both by those who regard it as a part of the old **Lake Moeris** and by those who do not. Modern expert engineering opinion declares unhesitatingly that this lake, the water surface of which is about 130 feet below sea level, is all that remains of Lake Moeris, and it has, according to the authorities quoted by Sir W. Willcocks, been definitely proved that Lake Moeris never had a natural outlet towards the interior of the country, and that it was never connected in any way with the Wâdî Rayan, which it nearly touched.

According to Mr. Beadnell (*Topography and Geology of the Fayum Province*, Cairo, 1905, p. 26), the Fayyûm is a depression which in Pliocene times was occupied by the sea, which then extended for some distance up the Nile Valley. Later on, in Pleistocene times, when the drainage of North-Eastern Africa flowed down the Nile Valley at a considerably higher level than to-day, the Fayyûm depression became a lake communicating with the river. Later on, as the river eroded its bed, the depression was probably cut off from the Valley, until in early historic times the river bed had again risen sufficiently by deposition to render possible the diversion of part of its supply into the Fayyûm. From that time, by regulating the amount so diverted, it was possible to reclaim gradually almost the whole of the floor of this low-lying area for cultivation. Now all that remains of the former lake is an area of 233 square kilometres of brackish water, which is being reduced yearly, as the water which reaches it is less than that which is removed by evaporation.

One of the most extraordinary facts in connection with Lake Ḳurûn is that its waters are only slightly brackish; they are, moreover, quite drinkable, and fresh-water fish from the Nile are found in them in abundance. The cause of this is said to

be clefts and fissures in the bottom of the lake and the very considerable drainage which has gone on. The streams of water which flow from these subterranean passages travel towards the Marmarica coast between Alexandria and Derma. There, "owing to the tensile force inherent in all water at a high temperature, they are discharged at great depths below the level of the Mediterranean Sea." The effect of this constant drainage has been to lessen the quantity of salt in the lake, and to lower the level of its waters. In some places its depth is as much as 26 feet, and in others it is as little as 10 feet. As the Fayyûm basin is closed in on all sides by bluffs and hills of considerable height, had there been no subterranean drainage the salt in the waters of Lake Ḳurûn must have increased, but the contrary is the fact, and the amount of salt in its waters at the present time bears no adequate proportion to that which the lowest estimate of experts entitles us to expect. In support of the explanation of the relatively slight brackishness of the waters of Lake Ḳurûn given above, Dr. Schweinfurth and Sir W. Willcocks mention the case of Lake Tchad in the Central Sûdân as exhibiting an example of subterranean drainage on a larger scale. The waters are perfectly sweet in spite of the absence of any apparent outlet. This lake is drained by active infiltration towards the north-east in low depressions, which are known as the Baḥr al-Ghazâl.

In connection with Birkat al-Ḳurûn must be mentioned the famous **Natron Lakes**, which lie in the Natron Valley, to the north-west of Cairo. From these are obtained carbonate of soda and muriate of soda, both of which salts have been loosely classed as "natron"; these *Birak* or "Lakes" are six or eight in number, and the valley in which they are situated is about 20 miles long, and varies in width from 1½ to 5 miles. Dr. Sickenberger observed in 1892 that all the springs which gave birth to the "Lakes" were situated on the eastern side of the valley, and this fact suggests that the "Lakes" are probably due to direct infiltrations from the Nile. [For a description of the Monasteries near the Natron Lakes, *see* p. 256–7.]

Along the northern coast of the **Delta**,* close to the Mediterranean Sea, are several large lagoons, of which the

* "Delta" is the name usually given to the triangular island which is often formed by the mouths of large rivers, *e.g.*, the Indus and Nile, because it resembles in shape the fourth letter of the Greek alphabet, Δ. In the case of the Nile, the two sides are formed by the Rosetta and Damietta arms and the base by the Mediterranean Sea.

most important are **Lake Manzâlah** (area, 1,930 square kilos.), **Lake Bûrlûs** (area, 690 square kilos.), **Lake Edkû** (area, 270 square kilos.), **Lake Abuḳîr**, and **Lake Mareotis** (area, 290 square kilos.); between these lakes and the sea are innumerable sand-bars or dunes. It was estimated in 1905 that the amount of land flooded by these lakes was equal to about 380,000 acres, but draining operations have been steadily carried out for some years, and Lake Abuḳîr has been almost entirely reclaimed. Much land, too, has also been reclaimed from Lake Manzâlah. The **Delta** measures: From Meks, west of Alexandria, to the shore of Lake Manzâlah, a little to the east of Port Sa'îd, 250 kilometres (156 miles); from Cairo to the lighthouse of Lake Bûrlûs, 175 kilometres (110 miles); and its area is about 23,000 square kilometres. The Delta now begins about 14 miles north of Cairo, at the Barrage, but in ancient days the bifurcation of the Nile took place some ten miles nearer Cairo. The alluvial sand and mud of the Delta rest upon a thick deposit of yellow quartz sands, layers of gravel and stiff clay, which was laid down when the sea extended some distance up the Nile Valley, in the "Fault Valley" in which now lies the cultivated land of Egypt.

In ancient days it is said that the land now occupied by the lakes mentioned above was divided into tracts of land each containing about 50,000 acres, and that whole districts were planted with vineyards, and that the region supported a large population. The heaps of bricks and pottery which are found round about in all directions suggest that this tradition rests on some good foundation, although the visitor, when he looks on the scene of desolation which the neighbourhood presents, will have some difficulty in believing it. Irrigation engineers declare that the present state of things is due chiefly to the fact that the system of basin irrigation was abandoned by the Egyptians under the rule of the Turks, who allowed 40 per cent. of the land of the Delta to fall out of cultivation, and, what is worse, by keeping the land out of cultivation for so many years, they have made it so salted and barren that it is exceedingly difficult to reclaim it. Besides this, moreover, an ancient tradition says that the level of the land itself sank some 1,000 or 1,500 years ago, and that in consequence the city of Teni, or Tanis, and the whole region of the "**Field of Zoan**," disappeared. Sir W. Willcocks has explained the sinking of the land in the following manner:—

"The Nile, like all deltaic rivers, deposits each flood its annual layer of fresh soil. This deposit is greatest near its banks. The natural consequence is, that the river advances into the sea in a series of tongues corresponding to the different mouths of the river. There is a limit to their length in the fact that, after a time, during some year of high flood, the river breaches its banks, and, finding a shorter course to the sea, tears open a new channel, and silts up the old one. The flood-water of the Nile, however, as it forces itself into the sea, meets the prevailing north-west wind, which drives back the matters held in suspension, and carrying on the sand, deposits it in long bars, stretching from mouth to mouth on a regular curve. These sand-bars are added to every year, and are considerably higher than the land behind them." The steep slopes of such sand-bars towards the sea render them liable to slide, provided the level of the sea falls, a thing which would happen during a severe earthquake; given some appreciable lowering of the sea-level for a short interval of time, and the sliding of the sand-bars towards the sea, the whole of the land for some distance behind the sand-bars would be more or less swamped and thrown out of cultivation (*Egyptian Irrigation*, second edition, p. 241).

Lake Timsâḥ and the **Bitter Lakes** have come into being through the construction of the Suez Canal; before 1865 they were mere swamps filled with reeds.

The **Oases.**—In Ptolemaic times the **Oases** were said to be **seven** by Egyptian geographers:—(1) The largest of all is that which lies about 16 days' journey to the west of Cairo, and is commonly known by the names of "**Oasis of Jupiter Ammon,**" and "**Oasis of Sîwah**"; (2) The Oasis of **Al-Khârgah**, which is best known as the **Great Oasis,** lies at a distance of about four days' journey from Asnâ; (3) Beyond Al-Khârgah, to the north, lies the **Oasis of Dâkhlah,** which some have thought to represent the **Little Oasis**; (4) About half-way between the Great Oasis and the Little Oasis is the **Oasis of Farâfrah**; (5) To the north-east of Farâfrah and Dâkhlah is the **Oasis of Baḥarîyah,** which has also been identified with the Little Oasis of early writers; (6) The district which was called by the Egyptians Ut or Uaḥet, *i.e.*, "Oasis," has not yet been satisfactorily identified; (7) The region called **Sekhet-ḥemam**, *i.e.*, Salt Field, is no doubt some portion of the Wâdî Naṭrûn, or Natron Valley. At the present time the Oases in the Western Desert which belong to Egypt are five in number, viz., Sîwah, Baḥarîyah, Dâkhlah, Khârgah, and Farâfrah. Of the history of the Oases in early dynastic times nothing is known, but they were probably raided by the tribes who lived between them and the Nile and even by the Egyptians themselves. Usertsen I., the founder of the XIIth dynasty, appears to have been the first king of Egypt who attempted to

make the inhabitants of the Oases subject to him.* Usertsen I. found, as later kings did also, that it was useless to attempt to conquer the Sûdân without first reducing the inhabitants of the Oases to submission. As long as the Oases were in the hands of people who were not subject to Egypt, the tribes of the Western Sûdân could retreat northwards by the roads running through the Oases, and find an asylum in the deserts of Northern Africa, until the Egyptian troops were withdrawn to Egypt. They appear to have been brought finally under the rule of Egypt about 1550 B.C., and there is reason to believe that they formed the Islands of the Blest in the popular mythology of a later period. Further details concerning the Oases will be found on pp. 252–255, 257–286.

II.—NATURAL HISTORY.

Natural History.—Trees, Plants, Animals, etc.—The different kinds of **trees** known to the ancient Egyptians were comparatively few in number. The principal were the *sunt*, *i.e.*, the **acacia,** of which two or three species were known; two or three species of **tamarisks,** the **mulberry,** the **carob,** and "Christ's thorn tree." In pre-dynastic times the country must have been covered in many places with low trees and masses of marshy undergrowth, which formed cover for the wild animals that lived near the Nile. Wood has always been scarce in Egypt, and we know that as early as 3500 B.C. expeditions were sent into the Sûdân for the purpose of obtaining it; and it is on record that when, about 1100 B.C., the priests of Amen-Rā at Thebes wished to provide a new barge for the god to occupy during the water processions, they were obliged to despatch an official to Bêrût in order to buy cedar-wood suitable for the purpose direct from the merchants. In the neighbourhood of Cairo long avenues of **labbakh** trees were planted about 1870, and these not only improved the landscape but afforded very grateful shade to those who travelled along the roads by the sides of which they grew. The road to the Pyramids illustrated the importance of the *labbakh* tree for the comfort of the traveller. But in recent years some disease attacked the

* *See* the Stela of Åquāā [hieroglyphs] in the Berlin Museum, dated in the 34th year of Usertsen I.

labbakh tree and the foliage withered, and the authorities had them cut down and burned for firewood. The **vine** has always flourished in Egypt, and in ancient days large quantities of wine were made; the grapes ripen in July. Among the commonest fruits may be mentioned **oranges, lemons, pomegranates, figs, grapes, apricots, peaches, melons, mulberries,** and **bananas,** and in recent years successful attempts have been made to grow the **straw-berry,** etc., in districts where water is plentiful, and the cost of distributing it over the gardens not prohibitive. The **date palm** is found everywhere, and its fruit is naturally one of the commonest articles of food. It has always been cultivated in Egypt, and the pruning and fertilization of the tree have always, at least in times of peace, been attended to with the greatest care. The blossoms appear in March and April, and the fruit is ripe at the end of August or early in September. Some 70 species are said by expert merchants to exist, and in many villages it is possible to find 20 or 30 sorts of date in the market. Very few kinds can be eaten fresh with impunity, and the fruit does not usually attain its full flavour until it has hung on the tree for several days, or, if gathered, has been allowed to lie on mats in the sun. Among the species grown in Nubia and the Eastern Sûdân the *ibrîmi* and the *sulṭânî* are most prized, but owing to the neglect of the palm trees caused by the Dervish rebellion, it must be some years before the Sûdân date harvests are as good and plentiful as they were before the advent of the Mahdî. The **Dûm palm** flourishes in Upper Egypt and all along the Nile towards the south; its large, dark-brown nuts contain a soft, sweet substance which is pleasant to the taste. In a country where wood is scarce the trunks of the date palm and the dûm palm are very valuable, and the purposes for which the fibre, leaves, etc., are used are manifold. Sir W. Willcocks estimated in 1899 that there were about 5,200,000 date trees in Upper Egypt, the value of their fruit being £1,040,000, and that the value of the fruit of the 2,200,000 trees in Lower Egypt was £440,000—*i.e.*, the date harvest of Egypt was worth nearly one and a half million pounds sterling. In 1907 the number of tax-bearing date palms was 5,966,010. As the land on which the date palms grow is taxed, it seems very unfair to the *fallaḥ* to tax the trees as well.

The ancient Egyptians divided the **year** into **three seasons,** which they called **Akhet, Pert,** and **Shemut,** and these

contained the months of August–November, December–March, and April–July respectively. For all practical purposes the summer may be said to last from April 1st to August 1st, and the winter from December 1st to April 1st; the period from August 1st to December 1st may be called the flood season, and is distinguished by the Nile inundation. The ancient and modern inhabitants of the country agree in considering that a season is the length of time which elapses from the sowing of the seed to the end of the harvest, *i.e.*, four months.

The principal **crops** are **wheat, barley, dhura,** or maize of various kinds, peas, beans, lentils, *lûbiya*, clover, lucerne, rice, **sugar,** and **cotton.** In Upper Egypt the sowing of wheat, beans, clover, and barley begins early in October, and ends on November 30th; the barley and bean harvests begin about March 10th, and the wheat harvest a month later. The wheat crop in 1919-20 produced 5,606,000 *ardabs* (the *ardab*=5.44 bushels) and the barley crop 2,057,000 *ardabs;* the maize and dhura crops produced 13,361,000 *ardabs.* The sowing of **sugar cane** begins at the end of February, and ends about April 5th; the harvest begins on December 15th, and ends March 15th. In 1908–9 some 359,000 tons of cane were produced, as compared with 253,000 in 1907–8; the amount in 1910–11 was 515,000 tons. In 1919–20 the number of faddâns under sugar cultivation was not less than 52,030. The yield of sugar in the same year was 5,200 tons. A ton of sugar canes yields about 2 cwt. of sugar. The sowing of wheat begins on August 5th, and ends on October 15th. In Lower Egypt the sowing of wheat, beans, and barley begins on October 25th, and the harvest lasts from April 15th to the end of May; this, of course, refers to winter crops. The sowing of **dhura** (maize) begins on July 5th, and the harvest on October 15th. *Sulṭânî* rice is sown from May 5th to June 5th, and *Sabaini* rice from August 5th to September 5th; both kinds of rice are reaped in November. The sowing of **cotton** begins on February 20th, and ends on April 5th, and the harvest extends from August 20th to November 10th. In recent years the areas of land under cotton cultivation have steadily increased, but in some years the total of the crop has diminished. It is also stated on undoubted authority that the quality of the cotton tends to deteriorate (Cromer, *Egypt*, No. 1 (1906), p. 24). The values of the cotton and cotton seed exported in 1910 were £E.24,242,000 and £E.2,160,000 respectively. In 1895–6 the cotton crop was

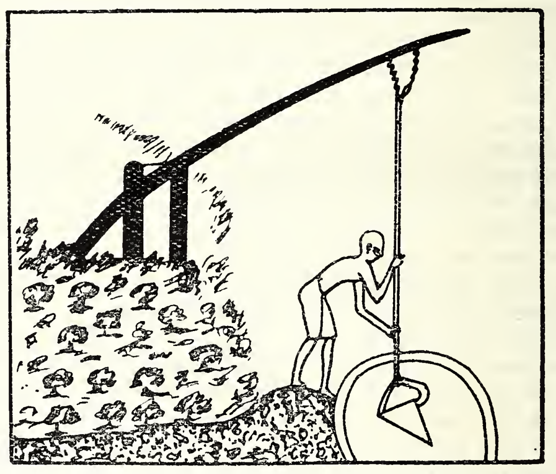
5,526,128 *ḳanṭârs* (the *ḳanṭâr* = 99 lbs.), in 1905–6 it was 6,551,878 *ḳanṭârs*, in 1916–17 it was 6,040,000, in 1918–19 it was 5,250,000. In 1919 Egypt exported 6,708,906 *ḳanṭârs* of cotton valued at £65,441,901. In August, 1914, the price of raw cotton in Egypt was 8½*d.* per lb.; in January, 1918, the price was 2*s.* 7*d.* per lb.; and in 1919 (March) the price was nearly 8*s.* The value of the rice exported in 1919 was £E.550,550.

The different sorts of **vegetables** grown in Egypt are numerous, especially in the Delta, where, under the modern system of irrigation, vegetable growing is very profitable. The commonest vegetable is the onion, and next come cucumbers of various kinds, pumpkins, melons of various kinds, gourds, leeks, garlic, radishes, *bâmia*, *bâdingân* (the egg plant), *malûkhiyah* or spinach, lettuces, cabbages, beetroot, turnips, carrots, etc. The value of the onions exported in 1919-20 was £E.444,634. That Egypt was famous as the home of fresh vegetables in very early times is proved by Numbers xi, 4, 5, where we read: "And the children of Israel also wept again, and said, Who shall give us flesh to eat? We remember the fish, which we did eat in Egypt freely; the cucumbers, and the melons, and the leeks, and the onions, and the garlick." In dynastic times **flax** was cultivated with great diligence, and the weavers of linen must have formed a considerable and wealthy section of the community. The importance of the flax crop was great, and it may be noted that it is coupled with barley in the Bible narrative (Exodus ix, 31), where it is said: "And the flax and the barley were smitten: for the barley was in the ear, and the flax was bolled" (*i.e.*, podded for seed). The cultivation of flax has decreased as that of cotton has increased. The town most famous for its linen stuffs was Panopolis, the modern Akhmîm, the people of which are still great weavers of linen. The canals, pools, and marshes, which were fed from the Nile, were ornamented in ancient days with lofty, waving **reeds**, or "bulrushes," the **papyrus**,* and the white and blue **lotus lily.** The papyrus grew to a height of from 12 to 15 feet, and the largest diameter of its triangular stalk was from 4 to 6 inches. The roots were used for firewood, parts of the plant were eaten, and the other and coarser parts were made into paper, boats, ropes, mats, etc. Papyrus, the material so extensively used for writing upon, was made from layers which were separated from the stalk of the plant with a flat

* The word "papyrus," according to Bondi, is derived from the Egyptian *Pa-p-iur*, *i.e.*, "that which belongs to the river."

needle, and then gummed together. Neither the papyrus nor lotus plant is found in Egypt at the present day.

The **plough** used by the natives is very similar in shape to that used by the ancient Egyptians, and would in no other country be regarded as an effective implement; it has comparatively little weight, and that portion of it which makes the furrow does not penetrate far into the ground. Its use is dispensed with as far as possible, and the seed which is scattered over the ground immediately the waters have receded is on large farms rolled in and on small ones beaten or trodden in. The fields are watered either by allowing the



Picture of an Ancient Egyptian Shâdûf being worked by a Fallaḥ. (From a Tomb at Thebes.)

water to flow from a basin or reservoir into the rectangular patches into which they are divided, so many at a time, or by machines, more or less complex, which lift the water from the Nile or from the large canals which flow out of it. The commonest water-raising machine is the **Shâdûf,** which is usually worked by one man, who raises the water in a skin bucket to the end of the channel which leads into the field or garden to be watered, and tilts it into it. Where the "lift" is high, and the leverage great, the **Shâdûf** is often worked by two men. This machine is simple and inexpensive to make, and economical to work, and, in one form or another, represents probably the oldest water-raising machine in the country

A more complex machine is the **Sâḳîyah**, or water-wheel, which is usually worked by oxen. An endless rope passes over the wheel, and to this is attached a series of earthenware pots, arranged at regular intervals, which, as the wheel revolves, dip into a pool at the bottom of the cutting in the river bank or well, and so fill themselves, and in due course empty themselves into a trough on the top of the bank. The wheel is made to turn by means of a sort of cog-wheel arrangement, which is set in motion by an ox, or ass, or even a camel. A



Modern Shâdûfs.

small boy usually sits on the large horizontal wheel and urges the animal on his course with blows from a whip or stick, accompanied by vigorous language. Owing to friction, and leakage, and imperfect construction the loss of power in such machines is very considerable, but in spite of this serious defect the **Sâḳîyah** forms an economical means of raising water. In many parts of Egypt and the Sûdân iron water-wheels have been erected, but in some places the natives do not view them with a favourable eye. In recent years steam pumps have been largely used for irrigation purposes.

The **manure** used throughout Lower Egypt "is the urine of farm cattle, with the ammonia fixed by dry earth, which is spread under the cattle and removed daily, and collected in heaps outside the farms. The dry atmosphere and the dry earth of Egypt combine to fix all the valuable ingredients in the urine. Before the flood the manure is carried to the fields which are going to be planted with Indian corn, and in this way every field receives manure once every two years. For special crops, as melons, gardens, etc., pigeon guano is



A modern water-wheel worked by oxen.

used" (Willcocks' *Egyptian Irrigation*, p. 384). The greater part of the manure produced by cattle is burnt by the natives for fuel. Mr. Fuller, C.I.E., the eminent authority on manures, states that Nile water, though exceedingly rich in potash, which constitutes the principal food of leguminous plants, is singularly poor in nitrogen, on which cereals depend. In Upper Egypt the manure consists of the nitrates which are found in the deserts between Wâdî Ḥalfah and Ḳanâ, and also of the accumulated rubbish of 20 or 25 centuries, which has been heaped up in the ruins on the sites of such ancient cities

as Abydos and Ashmûnên. The rubbish is called by the natives *Sabbâkh*, and the removal of it from old, ruined cities has, incidentally, resulted in the discovery of many priceless antiquities. South of Ḳanâ the supply from the deserts is inexhaustible, but to the north of Ḳanâ the ancient ruins are being gradually exhausted, and, moreover, supply but a fraction of the area requiring manure. The proximity of manures in the deserts or in ancient ruins has been found by Sir W. Willcocks to exert a strong influence on rents, and he thinks that the manure question must always be inferior only to that of irrigation.

It is in some quarters still a popular belief that large quantities of **tobacco** are grown in Egypt, but as a matter of fact none is grown for trade purposes. The first attempt to discourage the growth of the tobacco plant in Egypt was made in 1887, when a light tax per acre was put upon native-grown tobacco; this tax was raised to £E.50 per acre in 1889, and to £E.100 per acre in 1890, but notwithstanding this a considerable area was put under tobacco. In 1891 tobacco growing was absolutely prohibited, and people planted onions on the rich lands whereon they had previously grown tobacco. The tobaccos most commonly smoked by the natives are Turkish and Syrian; of the former there are two kinds, the "hot" and the "mild," and of the latter light brown and dark brown. The dark brown Syrian tobacco is commonly known as "Latakia," because it comes from Lâdiḳiyyah, a town in Syria. Other kinds are *tutun* and *tambâk*; the latter is usually smoked in water pipes. Sir Eldon Gorst called attention to the great development in the imports of leaf-tobacco from Russia, as a consequence of the effect of the recent Commercial Convention between Russia and Egypt. During the first twelve months after the signing of the Russian Convention 323,350 kilog. were imported as compared with 68,150 kilog. imported in the previous twelve months. The total quantity of Egyptian **cigarettes** exported continues to show a steady expansion, notwithstanding the equally steady reduction in the exports to Germany and Great Britain. In 1919-20 tobacco to the value of £E.3,070,744 was imported, and cigarettes to the value of £E.1,032,076 were exported. The duty paid on tobacco was £E.2,350,000.

The **land.**—In 1919-20 about 10,259,205 *faddâns* (the *faddân*=1.038 acre) were owned by 1,771,045 natives and Europeans. **Land-tax** brought in £E.5,097,500.

Lands in Egypt are classed either as *Kharâgî* or *Ushûrî*, the former including all the lands which appeared in the Cadastral survey made for Muḥammad 'Alî in 1813, and the latter the estates which were given by him and his successors to their friends and their favourites; *ushûrî* lands were at that time exempt from taxation.

The principal **domestic animals** are the **ass, camel, horse, mule, buffalo, ox, pig, sheep,** and **goat.** The **ass** is indigenous. The **camel** was known in Egypt so far back as 4000 B.C., for earthenware models of the animal have been found in graves of this period. Representations of the camel are not found on the monuments, and he plays no part in ancient Egyptian mythology; he seems to be mentioned in the *Travels of an Egyptian*, but the writer only saw the camel in Palestine, and we must conclude that the Egyptians, during the greater part of the dynastic period, had no use for the animal. The introduction of the camel into Egypt in modern times probably dates from the Roman period. The **horse** appears to have been unknown in Egypt until the beginning of the XVIIIth dynasty, about 1600 B.C., when the Egyptians began to employ the animal in their Asiatic wars. The **sheep** was known at an early period, but it does not appear to have been indigenous; a species of **ram** with flat, projecting horns existed under the early dynasties, but it appears to have become extinct before the XIIth dynasty. The **pig** was kept in certain districts, and the animal appears as a creature of evil in ancient Egyptian mythology; it was a black pig (which was a personification of Set, the god of evil) that inflicted an injury on the eye of Horus, the Sun-god, and so produced an eclipse. Several species of the **dog** were known, and some of the kinds used in hunting have been satisfactorily identified by recent investigators of the subject, especially in the case of greyhounds and the more heavily built dogs which were used for pulling down big game. The **cat** has flourished in Egypt in all periods, and the position which it occupies in the ancient mythology proves that it must have been well known in Egypt at a very early period. One species appears to have been used in hunting.

Among **wild animals** may be mentioned the **wolf, fox, jackal, hyena, hare, ichneumon, gazelle, oryx,** and **ibex.** The **hippopotamus** in early times was found in the Nile and its marshes far to the north in Egypt, and hunting it was considered worthy sport for an Egyptian gentleman. At what period the hippopotamus became extinct in Egypt is unknown,

but we may note that Saint Jerome, in his life of Abbâ Benus the monk, mentions that a hippopotamus used to come up from the river by night and devour the crops and lay waste the fields, and that the holy man succeeded in driving away the animal by adjuring it to depart in the name of Jesus Christ. This statement suggests that a hippopotamus was to be seen in Upper Egypt in the fifth century after Christ. The **elephant** disappeared from Egypt at a very early period, and probably also the **rhinoceros.** The **lion** was common, and the religious texts mention an animal which is probably to be identified with the **lynx.** Paintings on early tombs prove that the chief priests wore a leopard skin as a portion of their ceremonial attire, but it is uncertain at present whether the **leopard** was a native of the country or not.

Many species of **birds** existed, and still exist, in Egypt, and found good cover in the marshes and in the low-lying lands near the canals. The commonest bird of prey was the **vulture**, of which three kinds have been identified. **Eagles, falcons, hawks, buzzards, kites, crows, larks, linnets, sparrows, quail**, the **pelican**, the **bat**, etc., are all found in Egypt. The hawk, ibis, swallow, and heron appear in the ancient mythology, and many of the legends about them from ancient sources appear in the writings of the Copts and Arabs. In many districts **geese** of different kinds have always abounded, and at Chenoboskion, in Upper Egypt, they were fattened systematically; near the village of Gîzah, at the present day, may be seen large numbers of geese which are identical in shape and colour with those which the ancient Egyptians depicted so successfully on their monuments nearly 6,000 years ago. Pigeons and chickens flourish in Egypt, but it is thought that the latter were imported subsequent to the XXVIth dynasty.

Fish have always been abundant in the Nile, and in many districts form an important article of food. The commonest were the **oxyrhynchus**, *i.e.*, the sharp-snouted, the **latus**, the **silurus**, the **phagrus, chromis nilotica**, etc. The reservoirs, or irrigation basins, become filled with very small fish which are much prized by the natives, who catch them and pack them between layers of salt in large earthenware jars and keep them for months. Before the advent of steamers and railways the Egyptians, when travelling from Upper Egypt to Cairo, or from Cairo to Kharṭûm, took such jars of salted fish with them on their long journeys, and practically lived on fish and hard,

dry bread-cakes. In 1899 a survey of the fishes of the Nile was undertaken by the Egyptian Government with the co-operation of the Trustees of the British Museum, and Mr. W. S. Loat was entrusted with the work. Mr. Loat fished the Nile from the Delta to Gondokoro, *i.e.*, for a distance of about 2,800 miles, and he collected 9,500 specimens, representing over 100 species of fishes, 14 of which are new to science.

In 1902 Lord Cromer inaugurated a series of reforms in connection with the Fishing Industry on the salt-water lakes adjoining the sea. The fisheries were farmed by the Government, and the fishermen were little better than slaves in the hands of the tax-farmers, the average yearly income of a whole family being from £3 to £4. Soon after the introduction of licences the fishermen on Lake Bûrlûs (Borollus) were making from £2 15*s.* to £3 5*s.* per *month!* and the licence system was working admirably. The men and women of the Lakes population are better fed and better dressed, and each year the number of those who make the pilgrimage to Mecca is increasing. Mortar is now used in building the walls of their houses instead of mud, and the roofs are made of planks of wood instead of palm trunks.

Among **reptiles** the crocodile is the most famous. Until a comparatively late period this creature frequented the Nile so far north as the Delta, but steamers and sportsmen have, little by little, driven it southwards, and now the crocodile is rarely seen to the north of Wâdî Ḥalfah. Lizards are still fairly common, but turtles and tortoises are rare, except in the upper reaches of the Nile. In pre-dynastic times snakes must have existed in large numbers, and at a much later period they were a terror to the Egyptian; in modern times some 20 species have been identified, and of these several are venomous. **Snakes** play a prominent part in ancient Egyptian mythology, some appearing as friends of man and others as foes. Certain species attained a very large size, for Dr. Andrews found in the Fayyûm vertebræ of a fossil serpent, and it is calculated that when living it must have been between 40 and 50 feet long. The **uraeus** belonged to the venomous group, and appears to have been worshipped; it was regarded as the guardian of the king, and is described as possessing the faculty of belching flames and fire when moved to wrath. **Frogs** and toads have always abounded in Egypt, and **scorpions** still exist in considerable numbers. The small, black variety is able to kill small animals, and its sting can cause a full-grown man

much suffering. Among **insects** flies of various kinds, lice, and similar creatures increase with such extraordinary rapidity in certain circumstances that they become veritable plagues. The locusts still appear from time to time, and in large numbers, but, thanks to the methods now adopted for their destruction, their ravages are neither so severe nor so widespread as formerly. The **beetle** (*scarabœus sacer*) is common in Egypt and the Sûdân, and is an interesting creature. From pre-dynastic times to the end of the Pharaonic period it occupied a prominent position in the mythology and religion of the country, and even at the present day in the Sûdân it is supposed to possess magical powers. It was held to be the symbol of the self-created god Kheperȧ, and in the minds of the Egyptians it was associated with beliefs in regeneration, resurrection, and immortality.

It is, perhaps, hardly necessary to state that there still exist in the Sûdân several species of animals which were common enough in Egypt at one time, and that until quite recently there existed the probability that they would become as extinct in the Sûdân as they are in Egypt, unless steps were taken quickly to prevent the unnecessary destruction of animal life which was being carried on by the natives, whose object was to procure hides for sale in the market, and by "sportsmen," who were bent on piling up records of big game shot. The situation was quickly grasped by the Sûdân Government, who promptly took steps to draw up the **"Soudan Game Ordinance,"** which was issued in 1901. The regulations embodied in this document were necessarily of a tentative character, and many of them were subsequently modified. The immediate result was, however, very good. A "sanctuary" for Central African animals was formed, where no one is allowed to shoot. This sanctuary was kept practically inviolate during 1905, only two tiang, two white-eared cob, and three or four oribi being shot. A second and less absolute sanctuary has also been formed, in which only Sûdân officials in general will be allowed to shoot. It is in contemplation to place a limit of time to the period that shooting parties may pass in the reserved district; but at present the quantity of game killed yearly by shooting is not large enough to make much difference to the general stock of game in the country. Outside these two reserves all sportsmen will be allowed to shoot, save where restrictions are imposed for reasons other than those based on the desirability of preserving game. In 1901, up to October 31st, about 842 animals were

killed by holders of licences, and in 1902 the number amounted to 1,340; the number up to September 30th, 1903, was 1,072, and of these 175 animals were shot by visitors, and the remainder by Sûdân officials. In 1905 about 2,101 head of game were killed in the Sûdân. Of these 1,847 were killed by residents, officers, and officials, and 268 by visitors. In 1910 some 2,300 head of game were shot by 141 licence-holders; revenue, £E.3,500. Among the animals killed were:—Addra and other gazelles, the ariel, bashbuck, buffalo, cheetah, digdig, dinker, eland, elephant, giraffe, hippopotamus, ibex, Jackson's hartebeest, klingspringer, kudu, leopard, lion, oryx Jeucoryx, oribi, Mrs. Gray's waterbuck, rhinoceros, reedbuck, roan antelope, tiang, Toru hartebeest, Uganda cob, Wart hog, white-eared cob, waterbuck, wild ass, wild boar, wild dog. Some ostriches also were killed. In 1913–14 about 1,903 head of game were killed, 968 by visitors and 935 by holders of official licences. According to the official report, one of the principal causes of the abundance of African game in the past has been the existence of powerful warrior tribes, which laid waste great tracts of surrounding country for decades together. In these devastated areas the game increased until its numbers were as great as the soil could support. The barbaric power that makes a solitude and calls it peace is the best game preserver. Legislation can protect game from the rifle, but it is powerless to save it from giving way to civilization. The *Pax Britannica* can never do for African game in the future what the Zulu Impis, the Masai Moran, the slave-raiders, and the Dervishes have done in the past. The present condition and the outlook for the near future of the game appear to be very satisfactory. There are large areas in the Sûdân which are not likely ever to be populated, and where the continued existence of game in abundance can be secured by adequate protection. In such districts there is no reason why large game should not continue to exist for centuries; but from others, as the country becomes repopulated, and chains of prosperous villages spread along the river banks—the favourite haunts of the game—it is bound in time to disappear. At many places on the White Nile hippopotami do a great deal of harm. "In the narrow rivers of the Bahr al-"Ghazâl they swarm and are a positive pest, damaging the "crops near rivers, and constantly making unprovoked attacks "on small boats, dugouts, etc. Quite recently a Berthon boat, "carrying the mail for the north, was attacked and sunk, the

"mail and two rifles lost, and two men in the boat narrowly "escaping." Colonel Sparkes went so far as to suggest that hippopotami be treated as vermin and shot on sight. On the other hand, the news that provision is made for patrols, each containing six men, to prevent the slaughter of animals by poachers on the Rahad and Dinder Rivers, will be welcomed by many.

Minerals and Mineral Products.—**Gold** is found in many places in the Eastern Desert, and there are abundant proofs that the ancient Egyptians had many gold mines there, which they worked at a great profit. A number of sites have been worked by companies, and, according to Mr. J. Wells, the total returns of gold from two of them, *i.e.*, the Nile Valley and the Umm Rûs, have amounted to £E.40,000. Gold to the value of about £30,000 has also been extracted by the Nile Valley Company from the Umm Garaiart mine. In the Western Desert, in the Oases of Khârgah and Dâkhlah, a deposit of gold has been found in a lower bed of phosphate rock which contains gold worth from a few pence to as much as 7*s.* 6*d.* or 8*s.* per ton. In 1919–20 gold ingots to the value of £E.30,053 were produced. **Copper** is found in the Peninsula of Sinai, and we know that the famous copper mines of Wâdî Maghârah and Ṣarâbît al-Khâdim were worked under the early dynasties of Egyptian kings. **Coal** has been found in small seams, but until further investigations have been made it is impossible to say if they are worth working. **Lead** is found in the Eastern Desert, and the mines were worked by the Romans. **Iron** is found in many places, but without a cheap supply of fuel is not worth working. A few **sulphur** mines are known in the Eastern Desert. The famous **emerald** mines of Gabal Zâbarah were worked by the Greeks, Romans, and Arabs, and Mr. E. W. Streeter has obtained a concession to work them for thirty years. Extensive deposits of **nitrates, phosphates,** and **alum** have been found in the Western Desert. In 1919–20 phosphates to the value of £E.156,730 were produced. Egypt has in all ages been famed for the variety and beauty of its **granite, basalt, sandstone, limestone, alabaster, marble, diorite, quartzite, porphyry, breccia,** and **veined and variegated stones** of many kinds. **Petroleum** undoubtedly exists in the neighbourhood of Gabal Zêt (Oil Mountain), near the Red Sea, but the extent of the supply has not yet been thoroughly investigated. The kerosine produced in 1919–20 was worth

£E.17,921. **Salt** is common in Egypt; it is obtained chiefly from the lakes on the sea-coast, but many natives take their supply from the salt-springs and layers of rock-salt which are found at several places in the Western Desert. The greater part of the salt used in Lower Egypt comes from Lake Mareotis, near Alexandria. Up to 1892 all salt was sold direct by the Government at the price of 800 piastres a ton, but in that year a company was formed which bought the salt monopoly from the Government. This company sold salt to the people for 500 piastres a ton, and on every ton sold the Government received a royalty of 340 piastres. In 1904 about 60,000 tons of salt were consumed, and the revenue derived from the monopoly was £E.182,000. The monopoly pressed very heavily on the poor, and it gave rise to smuggling on a large scale, some 1,223 persons being fined or imprisoned for this offence in 1904, and the number of animals confiscated was 489. Lord Cromer regarded the monopoly as a blot on the fiscal system of Egypt, and it was therefore abolished from January 1st, 1906. The estimated loss to the revenue was £E.175,000. The value of the salt produced in 1919–20 was £E.56,023. **Soda** or **natron,** which was so largely used in the processes of mummification, is obtained from Wâdî Naṭrûn. The mining industries of Egypt are at present only in their infancy, but it is clear that when the country has been carefully surveyed, large deposits of valuable earths, etc., will be found at many places. The value of the metallic ores produced in 1919–20 was £E.76,052. The policy of the Government is not to hurry the exploitation of the country, but to have the mines worked in its true interests.

III.—ANCIENT AND MODERN DIVISIONS, POPULATION, Etc.

1. **Names of Egypt.**—The **name** by which the Delta, and probably also the cultivated land on both sides of the Nile as far south as Aswân, are designated in the Bible is **Mizraim** (Genesis x, 6), *i.e.*, the "double Mizr," for the dual form of the word has led scholars to believe that it describes the two great divisions of Egypt, **Lower** and **Upper.** Some scholars think that "Mizraim" is the Hebrew name for the two great walled enclosures of Egypt [hieroglyphs] Northern Egypt and [hieroglyphs]

Southern Egypt. The Greeks called the whole country ΑΙΓΥΠΤΟΣ, a name which is in reality derived from an ancient native name of Memphis, viz., **Ḥet-ka-Ptaḥ**, *i.e.*, the "House of the Ka (or, double) of Ptaḥ." The Copts transcribed this name by ⲉⲕⲉⲡϯⲁ Ekeptia. Homer, who seems to be the first to use the name Αἴγυπτος, makes the masculine form apply to the River Nile (*Odys.* iv, 477), and the feminine to the country itself (*Odys.* xvii, 448). From the Greek form of a name of Memphis came the Latin "**Aegyptus**," and, later, our "**Egypt.**" It has, however, been suggested that the original Egyptian word for Egypt was Ageb, and that it means the "land of the flood," which was poured into Egypt from the great World-Ocean which surrounded the whole earth by the Flood-God Ageb.

A very old Egyptian name for the country is *Kamt*, *i.e.*, the "black land," the allusion, of course, being to the colour of the soil; from this name is derived the Coptic *Kême*, or *Kêmi*, or *Khême*. Among the many other names which the Egyptians called their country may be mentioned Baqet, *i.e.*, the "land of the olive," Ta-merà, *i.e.*, the "land of the inundation." From the earliest to the latest times the Egyptians referred to their country as Taui, *i.e.*, the "Two Lands," and this name indicates that Egypt was always divided into two parts, viz., the "Land of the North," *i.e.*, **Lower Egypt**, and the "Land of the South," *i.e.*, **Upper Egypt.**

For administrative purposes **Ancient Egypt** was, in dynastic times, divided into districts, to which classical writers gave the name of **nomes.** The number of these varies in the different accounts given by Greek and Roman writers from thirty-six to forty; there appears to be some reason for thinking that the nomes were forty-two in number: Lower Egypt containing twenty, and Upper Egypt twenty-two. In quite late times the Greeks divided Egypt into three parts—Upper, Central, and Lower Egypt; Central Egypt contained seven nomes, and was called **Heptanomis.**

2. A List of the ancient Egyptian names of the divisions or provinces of Egypt, and their capital cities and gods.

Names printed in heavy type are Egyptian; those in capitals are Greek; and those in *italics* are the names by which the places are known by the modern Arabs:—

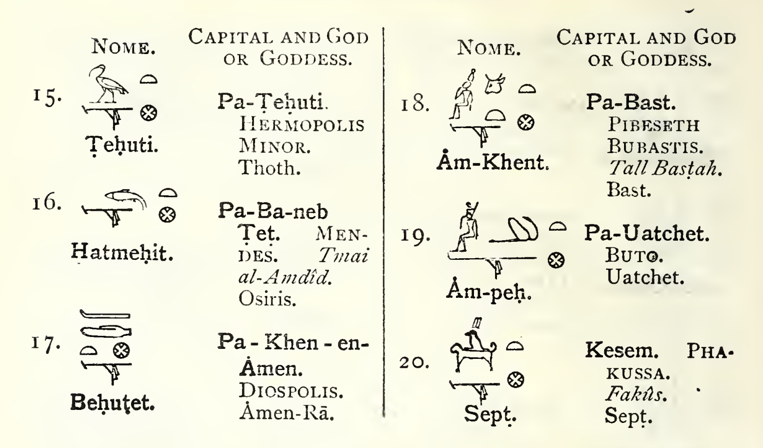
Upper Egypt.

No.	Nome.	Capital and God or Goddess.
1.	**Ta-Sti.**	**Abu.** ELEPHANTINE. *Aswân.* Khnemu.
2.	**Thes-Ḥeru.**	**Ṭeb.** APOLLINOPOLIS MAGNA. *Edfû.* Ḥeru-Beḥuṭet.
3.	**Ten.**	**Nekheb.** EILEITHYIASPOLIS. *Al-Kâb.* Nekhebit.
4.	**Uast.**	**Uast.** THEBES (or HERMONTHIS). *Luxor, Karnak.* Åmen-Rā.
5.	**Ḥerui.**	**Gebti.** COPTOS. *Kuft.* Åmsu, or Menu.
6	**Åati.**	**Taenterert.** TENTYRIS. *Denderah.* Hathor.
7.	**Seshesh.**	**Ḥa.** DIOSPOLIS PARVA. *Ḥau.* Hathor.
8.	**Åbt.**	**Teni.** THIS. Ån-Ḥer.
9.	.....	**Åpu.** PANOPOLIS. *Akhmîm.* Åmsu, or Menu.
10.	**Uatchet.**	**Ṭebu.** APHRODITOPOLIS. Hathor.
11.	**Set.**	**Shas-ḥetep.** HYPSELIS. *Shutb.* Khnemu.
12.	**Ṭu-f.**	**Nut-ent-båk.** HIERAKONPOLIS. Horus.
13.	**Åm-f-khent.**	**Saut.** LYKOPOLIS. *Asyûṭ.* Up-uat.
14.	**Åm-f-peḥ.**	**Kesi.** KUSAE. *Al-Kusîyah.* Hathor.
15.	**Unt.**	**Khemenu.** HERMOPOLIS. *Ashmûnên.* Thoth.
16.	**Maḥetch.**	**Ḥebennu.** Horus.
17.	**Ånpu** (?).	**Kasa.** KYNONPOLIS. *Al-Kês.* Anubis.
18.	**Sept.**	**Ḥet-suten.** *Al-Ḥîbah.* Anubis.

	Nome.	Capital and God or Goddess.
19.	Bu-tchamui	**Pa-Mātchet.** OXYRRHYNCHUS. *Bahnassâ.* Set.
20.	Åm-Khent.	**Suten-ḥenen.** HERAKLEOPOLIS MAGNA. *Ahnas.* (The Hânês of the Bible.) Ḥeru-shefit.
21.	Åm-peḥ.	**Smen-Ḥeru.** Khnemu.
22.	Maten.	**Ṭep-Åḥet.** APHRODITOPOLIS. *Atfîḥ.* Hathor.

Lower Egypt.

	Nome.	Capital and God or Goddess.
1.	Ånebḥetch.	**Men-Nefert.** MEMPHIS. *Mît-Rahînah.* Ptaḥ.
2.	Å. (?)	**Sekhem.** LETOPOLIS. Ḥeru-ur.
3.	Åment.	**Pa-neb-Åmt.** APIS. Hathor.
4.	Såpi-Rest	**Tchekā.** Åmen-Rā.
5.	Såpi-Meḥt	**Saut.** SAÏS. *Sâ.* Neith.
6.	Ka-semt.	**Khasut.** XOÏS. Åmen-Rā.
7.	Nefer-Åment.	**Pa-Aḥu-neb-Åment.** METELIS (?). Ḥu.
8.	Nefer-Åbt	**Thekaut (Succoth), Pa-Tem (Pithom).** PATUMOS. *Tall al-Maskhûṭah.* Åtem, or Temu.
9.	Åthi (?)	**Pa-Åsår.** BUSIRIS. *Abû-Ṣîr.* Osiris.
10.	Ka-Kam.	**Ḥet-ta-ḥer-åbt.** ATHRIBIS. Ḥeru-Khenti-Khati.
11.	Ka-ḥeseb.	**Ḥesbet (?) Ka-Hebset (?).** KABASOS. Isis or Sebek.
12.	Theb- . . .	**Theb-neter (?).** SEBENNYTOS. *Sammanûd.* Ån-Ḥer.
13.	Ḥeq-āṭ.	**Ånnu** (The On of the Bible). HELIOPOLIS. *Maṭarîyah.* Temu.
14.	Khent-åbt.	**Tchal.** TANIS. *Ṣân.* Horus.



	Nome.	Capital and God or Goddess.
15.	Ṭeḥuti.	Pa-Ṭeḥuti. HERMOPOLIS MINOR. Thoth.
16.	Hatmeḥit.	Pa-Ba-neb Ṭet. MENDES. *Tmai al-Amdîd.* Osiris.
17.	Beḥuṭet.	Pa-Khen-en-Åmen. DIOSPOLIS. Åmen-Rā.
18.	Åm-Khent.	Pa-Bast. PIBESETH BUBASTIS. *Tall Basṭah.* Bast.
19.	Åm-peḥ.	Pa-Uatchet. BUTO. Uatchet.
20.	Sepṭ.	Kesem. PHAKUSSA. *Fakûs.* Sepṭ.

3. **Modern Egypt** is divided for administrative purposes into Fourteen Provinces, of which six are in Lower Egypt and eight in Upper Egypt.

Lower Egypt contains :—

1. **Baḥêrah,** with eleven districts ; the capital is Damanhûr, and the population (including the Oasis of Sîwah, 3,267) is 892,246.
2. **Ḳalyubîyah,** with four districts ; the capital is Banhâ, and the population is 528,581.
3. **Sharḳîyah,** with six districts ; the capital is Zaḳâzîḳ, and the population is 955,497.
4. **Dakhalîyah,** with six districts ; the capital is Manṣûrah, and the population is 986,643.
5. **Manûfîyah,** with five districts ; the capital is Shibîn al-Kôm, and the population is 1,072,636.
6. **Gharbîyah,** with eleven districts ; the capital is Ṭanṭâ, and the population is 1,659,313.

Upper Egypt contains :—

1. **Gîzah,** with four districts ; the capital is Al-Gîzah, and the population is 524,352.
2. **Bani-Suwêf,** with three districts ; the capital is Bani-Suwêf, and the population is 452,893.
3. **Minyâ,** with eight districts ; the capital is Minyâ, and the population is 763,922. This number includes the people of the Oasis of Baḥrîyah, and of the Oasis of Farâfrah (6,497).

4. **Asyûṭ**, with nine districts; the capital is Asyûṭ, and the population is 981,197. This number includes the people of the Oasis of Dâkhlah (17,699), and of the Oasis of Khârgah (8,160).
5. **Girgâ**, with five districts; the capital is Sûhâk, and the population is 863,234.
6. **Ḳanâ**, with six districts; the capital is Ḳanâ, and the population is 840,317.
7. **Aswân**, with three districts; the capital is Aswân, and the population is 253,340.
8. **Fayyûm**, with three districts; the capital is Madînat al-Fayyûm, and the population is 507,617.

The large towns like Alexandria, Port Sa'îd, Isma'îlîyah, Suez, Cairo, Damietta, Al-'Arîsh, are generally governed by native rulers; to these must be added the province of Aswân.

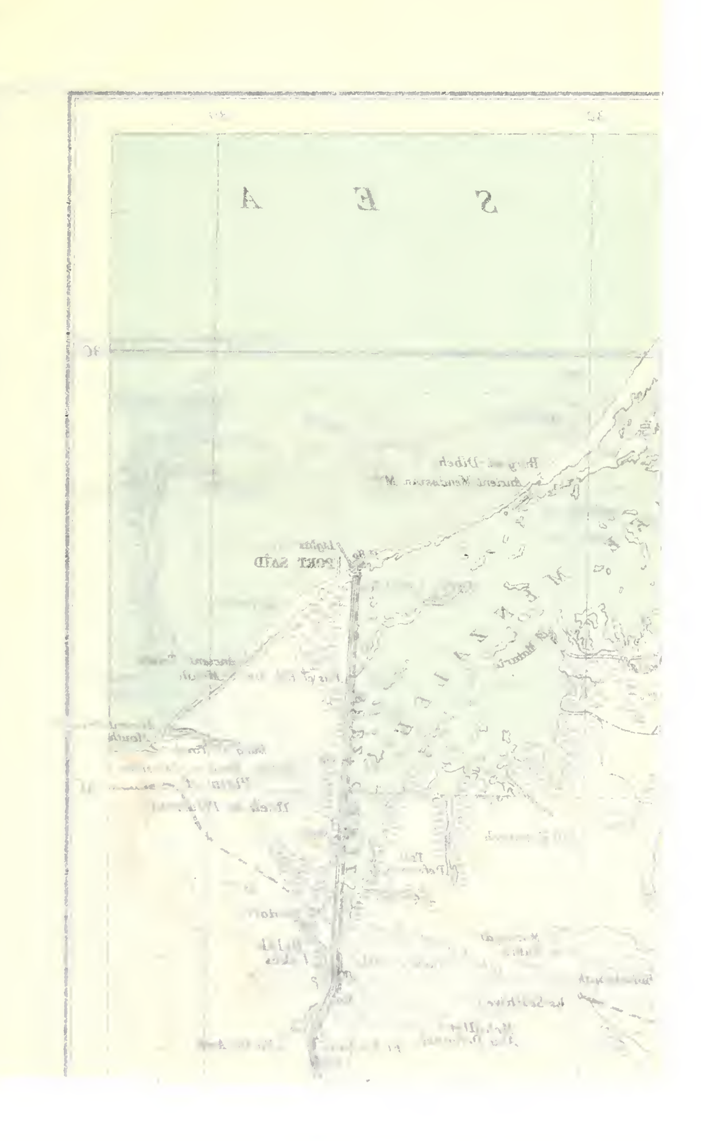
4. **Population of Egypt.**—In a country like Egypt, which contains so many people who only live in the country for a part of each year, it is exceedingly difficult to obtain an accurate statement of the number of the inhabitants. Ancient Egyptian texts throw no light on the matter, and we may assume that the Egyptians, like most other Oriental peoples, took no trouble to number the people; so long as kings and governors could "squeeze" out of the inhabitants whatever supplies they needed, the number of the inhabitants who contributed to them mattered little. According to Mommsen, 7,500,000 people paid poll-tax in the reign of Vespasian, and if, as he believed, about 500,000 were exempt, it follows that the population of Egypt under the Romans amounted to about 8,000,000, without reckoning slaves. In **1800** the population was said to be about **2,460,200**, and some fifty or sixty years later Sir Gardner Wilkinson, who knew Egypt well, estimated it at one million less. In **1821** the population was **2,536,400**, and in **1846**, **4,476,440**. The census published in 1884 declared that in **1882** the population of Egypt amounted to **6,831,131** persons, of whom 3,216,847 were men, and 3,252,869 were women. Included in the number of 6,831,131 persons were 98,196 nomads, 245,779 desert Arabs (commonly called Badâwîn), and 90,886 foreigners. According to the **census of 1897** the population of Egypt amounted to **9,734,405** persons, of whom 4,947,850 were males and 4,786,555 were females; in Upper Egypt the population was 4,058,296, and in Lower Egypt, 5,676,109. These people occupied 3,692 towns and villages, and 14,449 hamlets

and smaller collections of houses. The number of houses occupied was 1,422,302, and the increase in the population since 1882 is 43 per cent. The Muḥammadans numbered 8,978,775, the Jews 25,200, and the Christians 730,162.

The population of Cairo is 790,939 (Muslims 631,163, Christians 128,988, Jews 29,207); of Alexandria, 444,617 (Muslims 322,437, Christians 94,525, Jews 28,858); Port Sa'îd, 70,873; Isma'îlîyah, 15,507; Al-'Arîsh, 404; Suez, 30,996; Sinai, 655; Damietta, 30,984; Ṭanṭâ, 210,877; Manṣûrah, 122,048; Zaḳâzîḳ, 227,422; Asyûṭ, 92,855; Madînat al-Fayyûm, 122,285.

The **total population** of Egypt, including 97,381 nomads, was in **1907**, 11,287,359, of which 5,667,074 were males and 5,620,285 females. As Egypt contains 12,026 square miles, the density of the population was 939 to the square mile. The net increase during the ten years 1897–1907 was 1,570,131, or 16 per cent., which gives an annual increase of 1·5 per cent. between 1897 and 1907. The increase of population in Cairo was 84,414, and in Alexandria 50,243 persons. The number of **Muḥammadans** in 1897 was 8,992,203, or 92·2 per cent. of the population; in 1907 it was 10,269,445, or 91·8 per cent. of the population. The number of **Copts** in 1897 was 609,511, or 6·25 per cent. of the population; in 1907 it was 706,322, or 6·31 per cent. of the population. Of the Copts the Orthodox numbered 667,036, the Roman Catholic 14,576, and the Protestant 24,710 in 1907; in 1897 the numbers were 592,374, 4,630, and 12,507 respectively. The **Jews** numbered 38,635 in 1907. The **Census** taken during the night of March 6–7, **1917**, shows that the population of all Egypt was in that year a little over **12,700,000**, *i.e.* an increase of **1,400,000** above the total of 1907. No country in Europe is so densely populated as Egypt. On July 1, 1919, the population was **12,878,000**; the **births** were 493,488, or 38 per 1,000 of the population, and the **deaths** 383,869 or 30 per 1,000 of the population.

The reader will remember that during the winter of 1910–11 certain members of the Coptic community, who numbered in 1907 about 6·31 per cent. of the population, complained bitterly of the treatment which they received from the British rulers of Egypt as compared with their Muḥammadan fellow-countrymen. A number of self-constituted representatives (about 500) of the Copts, who could not claim to represent more than 12,000 of their co-religionists, assembled in Congress at Asyûṭ, and claimed :—**1.** The right of the Copts to take advantage of the educational facilities provided by the new Provincial Councils. **2.** Recognition of capacity as the sole test for




MEDITERRANEAN SEA
LIBYAN DESERT
ARABIAN DESERT
COOK'S MAP
OF THE
NILE-DELTA
Scale of English Miles
State Railways shewn thus
Light
Forts
Longitude East 31° of Greenwich
ALEXANDRIA
CAIRO
PORT SAÏD
SUEZ
LAKE MENZALEH
ABUKÎR BAY
LAKE MARIUT
LAKE EDKU
Rosetta
Damietta
Ismailia
Tanta
Benha el-Asl
Zagazig
Gizeh
(1072/7/21J)
W. & A. K. Johnston Limited, Edinburgh

admission to Government appointments. **3.** Representation of the Coptic community in the representative institutions of Egypt. **4.** Permission for non-Muslims in Government offices and schools to substitute another day for Friday as their day of rest. **5.** Conferring of Government grants on all deserving institutions without invidious distinction. These claims having been enquired into by the Government it was found that in so far as claim No. 1 is concerned there was no solid ground for complaint. As regards claim No. 2, it was found that 45·31 per cent. of the Copts were employed in Government service as against 54·69 per cent. of the Muslims in April, 1911. These facts proved that the Copts were represented in the Egyptian Civil Service, both as regards numbers and salaries, to an almost disproportionate extent. In fact they had more than their share of Government appointments. Their only possible grievance lay in the fact that the posts of Mûdir, Governor, and Ma'amûr are held by Muslims, but it must be said that in this case, as elsewhere, the tests of capacity and natural aptitude are applied. As a rule the Muslim is a man of action, and as a rule the Copt is not; moreover, in Upper Egypt at least he is not popular, and the Muslims would not obey him. As to claim No. 3, the Copt must always, by reason of his number, be in a minority on every governing body. As to claim No. 4, his cry for Sunday as a rest day was unreasonable. Facilities are given to every Copt to attend his church on Sunday morning, and on their New Year and Easter Festivals they are not required to be in their offices. Moreover, they profit by all Muslim holidays. As to claim No. 5, none of their charities can be regarded as national institutions, and therefore no Government ought to support them. If we consider the wealth of the Copts such a claim is incomprehensible.

IV.—THE NILES IN EGYPT AND THE SÛDÂN.

The Nile is unquestionably one of the most important and interesting rivers in the world, for it and its two great tributaries, the Blue Nile and the Atbarâ, have transported soil from the highlands of north-east Africa, and laid it down many hundreds of miles from whence it came, and have thus formed Egypt. The **Nile** * has in all ages been considered a mysterious river, and when we remember that it was and still is the mainstay of all life in Egypt, and the source of all prosperity in that land, it is not difficult to understand why the ancient Egyptians worshipped it. There is no reason for supposing that the pre-dynastic and dynastic Egyptians ever took the trouble to trace it systematically to its source, or that they ever attempted to define its influence upon themselves and their character, except in a rough-and-ready way; but there is no doubt that they were awestruck at the river which pursued its way resistlessly and unceasingly through hundreds

* The word "Nile" is thought to be derived from the Semitic *nakhal*, in Hebrew נַחַל

of miles of blazing desert, without any apparent diminution, and they felt themselves justified in regarding it as one of the mightiest of the manifestations of the Creator of the world to His people. Year by year they saw it rise little by little, until at length, with a burst, it overflowed all obstacles, and carried its mud-laden waters over the fields until they reached, and sometimes flooded, the skirts of the desert, and year by year they saw its waters subside, and the river return to its bed, and great crops spring luxuriantly out of the mud which they had left behind them.

Experience soon showed them that in the year in which the Nile flood was abundant, food was cheap, cattle flourished, and the prosperity of the country was assured for the year; similarly, when the Nile flood was too great or too little, grain was dear, the cattle languished, business was paralysed, and want and misery filled the land. Everything in Egypt depended on the Nile, and it is not too much to say that the river was the cause not only of the physical characteristics of the Egyptians, but also of their learning and civilization. As it was of vital importance to the Egyptian to know when the Nile would rise, so that he might have his fields ready to receive its life-giving waters, and might make his domestic arrangements accordingly, he learned to watch the seasons and to measure time, and, as he no doubt made use of the stars for the purpose, he acquired rough ideas of chronography and astronomy. His need to make the greatest possible use of the waters of the inundation taught him to build small dykes and dams and embankments, and the example of the river, in spreading mud over the land yearly, showed him the necessity of top-dressing and of some kind of manure. In the earliest times, before he had learned to construct large canals and irrigation basins for the reception of the water, all the artificial divisions of the land into estates and properties were destroyed each year, and he was compelled to devise a system of mensuration which would enable a man to regain either his own property or its equivalent, and to work out a system of land valuation in which the distance of an estate from the river, the quality of the soil, etc., were carefully considered and provided for. In order to reckon the produce of the land he had to learn to count, and as records of sales of land and of exchanges were needed, systems of numbers, weights, measures, and some kind of writing would necessarily grow into existence.

That disputes should arise would be inevitable, and we may be certain that the settlement of these would, at a very early period, be committed to disinterested outsiders or friends who were supposed to have some knowledge of the matter, and in this way the "custom of the country" would grow into a law, and the decisions of the arbitrators would form precedents, and those who gave them would gradually acquire the power of judges in a modern court of law. Among the laws which would be made for the protection of property, *i.e.*, wives and families, cattle, crops, etc., none were more carefully observed than those which referred to the protection of water-courses and the purity of the water. And it is certain that in the religion of the primitive Egyptians the worship of the Nile played the most prominent part, for in the dynastic period, when men knew more about the river, the praises which they offered to the Nile-god show that they regarded the celestial and terrestrial Niles as the sources of life, both of gods and men. The Nile was declared by the Egyptians to be "a mystery," and they felt that its source was "hidden" from them; in other words, the Nile was unlike any other river known to them. And this is true, for no other river in the world has exactly the same characteristics, and no other river has formed a whole country quite in the same way, and no other river has impressed so deeply upon the people, who have lived on the soil which it has brought from remote distances, its own characteristics of isolation, reserve, and conservatism.

The **sources of the Nile,** that is to say, of the **Upper Nile,** the **White Nile,** and the river from Kharṭûm to the sea, were declared by Captains Grant and Speke, and by Sir Samuel Baker, to be Albert N'yanza and Victoria N'yanza, but according to Sir W. Willcocks, its sources lie to the south of Victoria N'yanza, and it takes its rise in the Kagera River, at a spot a few degrees south of the Equator. This view has, however, been proved to be erroneous by Sir W. Garstin, who shows that the **Kagera** represents the united flow of three rivers, and that the true source of the Nile is Lake Victoria itself.

"It has been maintained that the Kagera is the actual upper course of the Nile, and that before the subsidence took place which formed Lake Victoria, the Kagera flowed between the Sesse Islands and the western shore, then skirted the present northern shore by Rosebery Channel to Napoleon Gulf to join the Nile at the Ripon Falls; a distinct current is also mentioned as setting across from the Kagera to the Ripon Falls. Seeing how small an effect the volume discharged by the Kagera, even in

the rainy season, can have on the water of this vast lake, any such current must be an effect of the prevalent winds, and as we have seen that winds blow from lake to shore by day at almost all seasons, it is more than probable that in places a regular drift of the surface water may be caused" (Lyons, *Physiography*, p. 58).

The Great Equatorial Lakes.

Victoria N'yanza, *i.e.*, **Lake Victoria,** which covers an area of 70,000 square kilometres, is the first reservoir of the Nile ; it lies in the region of almost perpetual rains, and receives an excessive supply of water from its western tributaries, from subsoil springs and heavy rainfall. The second reservoir of the Nile is **Lake Albert,** which has an area of 4,500 square kilometres, and Lake Albert in its turn is fed from **Lake Edward,** which has an area of 4,000 square kilometres. Lake Victoria is 1,130 metres above sea-level, and 500 metres higher than Lake Albert. The White Nile between these lakes is called the **Victoria Nile,** or the **Somerset River.** From Lake Victoria to Lake Albert is a distance of 242 miles, and when the Nile leaves Lake Albert it flows in a steady stream, with scarcely any slope or velocity, to **Dufili,** a distance of 125 miles. From this place it passes over the **Fola Falls,** and runs as a torrent to **Lâdô** for another 125 miles. From Lâdô the river flows in a single channel to **Bôhr** about 75 miles, and then by many channels traverses a distance of 235 miles, when it meets the **Baḥr al-Ghazâl,** or Gazelle River. The main stream between Lake Albert and Lake Nô is called **Baḥr al-Gabal,** *i.e.*, the "Mountain River." Until recent years the fairways of this and the Gazelle River were seriously obstructed by nineteen dense barriers of floating vegetation, to which the natives have given the name of **Sadd,*** commonly pronounced "Sudd."

In 1900 Colonel Peake cut through the sadd on the Baḥr al-Gabal, and so established communication with the upper waters of the Nile. For 172 miles north of **Shâmbî,** the true bed of the Nile could not be found, and Colonel Peake was obliged to force a passage through a series of shallow lakes lying to the west of the true bed. Since 1900 this route has been used for boat and steamer traffic. In 1901 Lieutenant Drury (late R.N.) removed the worst of the blocks of sadd remaining north of Ghâba Shâmbî, and thus opened up to navigation a further length of 147 miles of channel ; there still remained, however, the most formidable obstacle of all,

* An Arabic word سَدّ meaning "barrier, block, obstruction," etc.

namely, a reach of some 25 miles in length in which the river had practically disappeared. In 1902 Major G. E. Matthews discovered the true bed of the river, and made some progress towards clearing a channel. In 1903–04 Lieutenant Drury and Mr. Poole resumed operations, and by their strenuous exertions they succeeded in clearing a passage by which freedom of navigation in the waters of the Upper Nile has at all times been secured. Meanwhile sadd cutting has been carried on in the Baḥr al-Ghazâl or Jûr River, and during the flood of 1903 a waterway was cleared to Wâw, and steamers succeeded in reaching that spot.

To keep the river free of sadd is a very difficult matter, and year by year the Sûdân Government are obliged to spend a considerable sum of money in cutting the blocks as they form, and in keeping the fairway clear. The blocks form very quickly, and are sometimes so thick that they have to be blown up with charges of dynamite. Miralai E. E. Bond, director of steamers, describes the blocking of the Baḥr al-Ghazâl in 1906 (*Reports*, p. 470) in a graphic narrative, which forms both interesting and instructive reading.

The **Bahr al-Ghazâl** flows into the Upper Nile on its left bank, and at the junction is **Lake Nô** with an area of 150 square kilometres in summer; here the waters of the Nile become polluted with decaying vegetable matter, and the green colour which is the result is, according to Sir W. Willcocks, observable so far north as Cairo in June and July. This green colour is due to large quantities of microscopic algæ which are floating in the water, and it is the oil contained in some of these which gives the unpleasant taste and smell. The principal algæ are the Aphanizomenon Kaufmanni, the Synedra acus, and the Anahæna variabilis. It has usually been supposed that the **green water** is caused by the mingling of the swamp water with that of the Nile, but it has been shown (*Egypt*, No. 1 (1903), p. 70) that this explanation is untenable, and that the real source of the algæ which are brought into the river in the early part of May is the Sobat River. The algæ thrive in clear Nile water at low stage and under a hot sun, but are killed when the turbid flood arrives. The green water has been observed in a continuous stretch from Kalâbshah to Cairo, about 564 miles.

Sixty miles further north the **Sobat River** flows into the Nile on the right bank. Lakes Victoria, Albert, and Edward, the **Baḥr az-Zarâfah**, or **Giraffe River**, the Baḥr al-Ghazâl and

Sobat Rivers are the **sources of the Upper Nile**. Between Lake Nô and Kharṭûm the river is known as the **White Nile.** About 560 miles further north is the town of Kharṭûm, towards which the White Nile flows in a stream more than a mile wide, and 6½ feet deep. Between Kharṭûm and the sea the river is known as the "**Nile.**" The total distance from Ripon Falls to Kharṭûm by river is about 1,560 miles; from Kharṭûm to Aswân is 1,165 miles, and from Aswân to the sea is 748 miles more; therefore, the **length of the Nile is 3,473 miles.** If we add the length of the Kagera River, which rises near the northern end of Lake Tanganyika, about 375 miles south of Lake Victoria, and also the length of the lake itself, about 250 miles, as many do, the total becomes 4,098 miles.

The town of Kharṭûm is built at the junction of the **Baḥr al-Azraḳ**, or **Blue Nile**, with the **White Nile** in 15° 36′ N. lat., and 32° 32′ E. long., and it is 1,253 feet above sea-level. The Blue Nile, called by the Abyssinians the **Abâî,** or **Abâwî,** is about 960 miles long. It rises in the mountains of Abyssinia, near Sakala, and enters **Lake Ṣânâ** after a course of about 155 miles; it leaves the Lake at its southern end. Lake Ṣânâ has an area of 3,000 square kilometres, and is about 5,785 feet above the level of the sea. Its perimeter is about 163 miles. The waters of the Abâî are nearly clear in summer, but from the beginning of June to the end of October they are reddish-brown in colour and highly charged with alluvium; because of this colour the river has been called **Baḥr al-Azrak**, *i.e.*, the "lurid river," as opposed to **Baḥr al-Abyad**, *i.e.*, "the clear river," or White Nile. Strictly speaking, the Nile of history is the stream which is formed by the Upper Nile, the White Nile, and the Blue Nile. About 201 miles north of Kharṭûm the river **Atbarâ** flows into the Nile on the east bank, after a course of about 790 miles. This river is fed by the Abyssinian torrents, and in flood is of great size; its waters are heavily charged with volcanic dust, and it provides the greater part of the rich fertilizing mud which the Nile carries in flood. The Atbarâ is in flood from July to October, and its stream is greatest in August. North of the Atbarâ junction the Nile has no other tributary, and it flows to the sea in a solitary stream.

Between Kharṭûm and the sea the Nile has **six Cataracts.** The **Sixth Cataract** (Shablûkah) is 56 miles north of Kharṭûm, and the Nile drops about 20 feet in little over one mile in length. The **Fifth Cataract** is 32 miles to the north of the Atbarâ,

and is over 100 miles long; in the course of it the Nile drops 205 feet. About 60 miles lower down is the **Fourth Cataract,** which is 66 miles long; in the course of it the Nile drops 160 feet. Between the Fourth and the Third Cataracts is a reach of 196 miles of open water; it begins about 12 miles above Gabal Barkal, and ends at Karmah. At the last-named place begins the **Third Cataract**, which is 45 miles long; in the course of it the Nile drops 36 feet. The **Second Cataract** begins about 70 miles further north; it is 125 miles long, and in the course of it the Nile drops about 213 feet. The town of Wâdî Ḥalfah lies a few miles to the north of the foot of it, on the east bank. The name given by the natives to the region through which the Second Cataract passes is "Baṭn al-Ḥagar," *i.e.*, "**Belly of Stone**." At Samnah, which is rather more than 40 miles south of Wâdî Ḥalfah, are the rocks whereon Lepsius discovered the **Nile gauges** which were cut by order of the kings of the XIIth dynasty, about **2300** B.C., and these show that the Nile flood recorded there was 26 feet higher than any flood of to-day. The distance between the Second and First Cataracts is 214 miles, and the stream is on an average 1,630 feet wide. The river in this reach is provided with gigantic spurs, which were built by one of the ancient kings to collect soil on the sides in flood, and to train the river in summer. The **First Cataract** is three miles long, and in the course of it the river drops between 16 and 17 feet. The Egyptians at one period of their history, for some unaccountable reason, believed that the source of the Nile was near Aswân, and that it lay under two rocks, which they called QERTI; these rocks are mentioned by Herodotus, who calls them Κρῶφι and Μῶφι, and he says that they were situated between the Islands of Elephantine and Philæ. Muḥammadan writers also thought that the Nile Springs were at Aswân. From Aswân to the Barrage, which lies a little to the north of Cairo, the distance is about 600 miles. Classical writers tell us that in ancient days the Nile emptied itself into the sea by **seven mouths**, to which were given the names **Pelusiac, Tanitic, Mendesian, Phatnitic, Sebennytic, Bolbitic, and Canopic.** Fourteen miles to the north of Cairo the Nile becomes two branches, which are known as the **Rosetta and Damietta arms** respectively; each of these is about 150 miles long.

It has already been said that a register of the height of the Nile flood was found at Samnah in the Second Cataract, and

that it dated from 2300 B.C., and we must note that a **Nile gauge existed on the Island of Elephantine,** opposite to the town of Aswân, at the foot of the Cataract, from very early times. It seems that the readings of the gauge at Elephantine * were always used as a base for calculating the general prosperity of Egypt year by year. In the reign of Severus an officer of the Roman garrison there noted an exceptionally high Nile, but the maximum flood mark noted by the members of Napoleon's great expedition was 2·11 metres higher than the mark made by the Roman officer. The French savants, reckoning from the middle of the reign of Severus (say A.D. 200) to A.D. 1800, concluded that the bed and banks of the Nile had risen 2·11 metres in 1,600 years, or 0·132 metre per 100 years.† Remains of **Nilometers,** or flood-marks, exist also at Kubush, Taifah, Philæ, Kôm Ombo, Silsilah, Edfû, Asnâ, Karnak, Luxor, Tahnah, and Kôm al Gîzah.‡ On the **Island of Rôḍah** is another very old Nilometer, which was restored in the 9th century; its zero is, however, said to be at the same level as a more ancient one whose readings have been preserved since 641. When the gauge was constructed a reading of 16 cubits meant the lowest level at which flood irrigation could be ensured everywhere. The level to-day is 20½ cubits on the gauge, and the difference between them is 1·22 metres, and from these facts Sir W. Willcocks concludes that the river bed has risen 12 centimetres per 100 years.

In the region of Lake Victoria the **rainy season** lasts from February to November, with one maximum in April and another in October; at Lâdô the rains last from April to November, in the Valley of the Sobat from June to November, in the Valley of the Baḥr al-Ghazâl from April to September, at Kharṭûm from July to September, and in Abyssinia there are light rains in January and February. Thus it is clear

* The new Nilometer, divided into cubits and twenty-fourths, was set up in 1869.

† It is clear that about A.D. 100 the Nile often rose to 24 and sometimes above 25 cubits on the Nilometer scale, so that the high floods of that time reached the level of 91 metres above sea-level. To-day they reach 94 metres, as in 1874, or 3 metres above the level of about 1,900 years ago, corresponding to a rise of the bed of 0·16 metre per century at this point. If the mean flood level of the last 36 years is taken, the height becomes 93 metres and the rise 0·11 metre per century. (Lyons, *Physiography*, p. 315.)

‡ *See* Borchardt, *Nilmesser und Nilstandmarken* (Abhand. der kgl. Preuss. Akad. d. Wissenschaft, Berlin, 1905).

that in every month of the year, except December, rain, which is destined to flow into the Nile, is falling into one or other of the great reservoirs, or sources of that great river. Before the construction of the Aswân Dam Sir W. Willcocks estimated that the water took eight days to travel from Lake Victoria to Lake Albert; five days from Lake Albert to Lâdô; 36 days from Lâdô to Kharṭûm in low supply, and 20 days in flood; 26 days from Kharṭûm to Aswân in low supply and 10 days in flood; 12 days from Aswân to Cairo in low supply and five days in flood; three days from Cairo to the sea in low supply and two days in flood. Thus it took 90 days for the water in low supply to travel from Lake Victoria to the sea, and in flood 50 days. The water of the Blue Nile travelled from its source to Kharṭûm in low supply in 17 days, and in flood in seven days; and the Atbarâ and the Sobat Rivers took about five days in flood. It was calculated that it took the water in flood 50 days to reach the sea from Lake Victoria and one of its tributaries, the Kagera, a distance of, say, 4,000 miles, which gives the speed of the current at 3½ miles per hour. At low Nile it travelled at two miles per hour. The amount of silt brought down was said to be 100,000,000 tons.

The following are the principal facts about the **Inundation**:—In a usual season the heavy rains begin in April and force down the green water of the swampy region, which used to reach Cairo about June 20th. The White Nile begins to rise at Lâdô about April 15th, and this rise is felt at Kharṭûm about May 20th. The floods of the White Nile and Sobat reach Kharṭûm about September 20th. About June 5th the Blue Nile begins to rise, and is in flood about August 25th. The Atbarâ flood begins in the early part of July, and is highest about August 20th. The Nile continues to rise until the middle of September, when it remains stationary for a period of about three weeks, sometimes a little less. In October it rises again and attains its highest level. From this period it begins to subside, and, though it rises yet once more, and reaches occasionally its former highest point, it sinks steadily until the month of June, when it is again at its lowest level.

The **irrigation of Egypt** is gauged by the height of the river at Aswân. When the maximum rise of the river is only 21 feet there will be famine in parts of Upper Egypt; when the rise is between 21 and 23 feet much of the land of Upper Egypt will be imperfectly watered; when the rise is between

$23\frac{1}{2}$ feet and 25 feet certain lands will only be watered with difficulty; when the rise is between 25 feet and $26\frac{1}{2}$ feet the whole country can be watered; when the rise is between $26\frac{1}{2}$ feet and 28 feet the country will be flooded; and any rise beyond the last figure will spell misery and the ruin of many.

From what has been said above about the Nile flood and the formation of Egypt it will be clear that the land is highest near the river bank and lowest near the desert; this is not only true for the main stream itself, but for its branches also. With a view of modifying the difficulty of watering the land **dykes** have been constructed parallel with the Nile, and transversely across the direction of the stream. These dykes enclose basins which are filled each year during the inundation, and nearly every basin has its canal which brings directly into it the flood waters which are charged with alluvium. Usually these canals are from 10 to 13 feet below the level of the ground, and they thus become dry during the period of the year when the Nile is not in flood. The mouths of such canals which admit the Nile are stopped up each year, but are opened about August 10th or 12th, so that the muddy waters may flow in freely. The basins are grouped according to system, and several of them may be supplied by one canal, and the amount of water admitted into each basin can be regulated by means of specially constructed apparatus, which is usually built of stone. The water is allowed to stand in the basins for 40 days, by the end of which time it will have deposited all the earthy matter suspended in it, and then the water which is left is allowed to flow out into the river by an escape. The filling of the basins begins about August 12th, but the time of emptying of them varies as we travel northwards, and the last basin is sometimes not emptied until November 11th. If the flood has been a good one the basins are emptied directly into the river, but if it has not, and all the basins have not been filled, wherever possible the upper series of basins are allowed to discharge their contents into the river by passing through the basins which were not sufficiently filled during the flood. Between Ḳanâ and Sûhâḳ two systems of basins cover a distance of 90 miles. The basins between Sûhâḳ and 125 miles northwards are fed by the **Sûhâḳîyah** Canal, which is almost as large as a river; from the end of this canal to Girgâ, a distance of 147 miles, the **Baḥr Yûsuf** and six canals feed the basins, and the Girgâ Canal feeds them for 60 miles further north. The **Ibrâhimîyâh Canal,** dug by

Isma'îl Pâshâ in 1873, waters the district which extends from Asyûṭ northwards for a distance of close on 200 miles. The dykes are about $11\frac{1}{2}$ feet high, and are about 20 feet wide at the top, and the average depth of the water in the basins is 5 feet. The villages in the basins are built on artificial mounds faced with stone, and during the flood they resemble small islands, between which communication is kept up by boat or by dyke. An average-sized basin contains an area of 9,000 acres.

At the beginning of the XVIIth century all Lower Egypt was irrigated by means of basins (**Basin Irrigation**), and the whole country was under cultivation; but between 1700 and 1800 the population had dwindled from 12,000,000 to 2,450,000, and irrigation had been abandoned over the greater part of the Delta. About 1820 Muḥammad 'Ali changed the irrigation system of Lower Egypt by digging a number of deep canals to contain water all the year round (**Perennial Irrigation**) which permitted the cultivation of cotton on a large scale. According to Sir W. Willcocks, this change was unfortunate, for the old basins were neglected, the embankments ploughed up, "and now that rich mud deposit, which constituted the wealth of Lower Egypt for thousands of years, can no longer be secured to renovate the land." In other words, perennial irrigation more quickly impoverishes the land than basin irrigation. Meanwhile the work of converting the basin system is going steadily on throughout Upper Egypt, and up to the end of 1905 an area of 251,170 acres of basin land had been converted at a total cost of £E.1,740,514. As a result, certain lands in the Fayyûm which were rented at £E.1·12 per acre in 1898, were rented in 1905 at £E.2·03 per acre. The property of the Domains Administration, which was worth in 1898 about £E.402,000, was valued in 1899 at £E.625,000, and at £E.1,300,000 in 1905. Elsewhere in many places the land which in 1898 was valued at from £E.5 to £E.10 per acre now fetches from £E.25 to £E.40 an acre (*see* the details in *Egypt*, No. 1, 1906, p. 40).

To clear the old canals used to cost £530,000 a year, to dig the new ones cost £3,300,000.

For irrigation purposes Lower Egypt is divided into three circles. The first includes the provinces on the right bank of the Damietta arm of the Nile, and four main canals; the second includes all the land between the Damietta and Rosetta arms of the Nile, and has one main canal; and the third includes the province on the west bank of the

Rosetta arm of the Nile, and has one main canal. All these canals take their supply directly from the Nile, and their water surface is generally from 10 to 13 feet below the level of the surrounding country. In 1899 the area of Lower Egypt which was cultivated was about 3,430,000 acres, and the yield was worth £23,475,000; and it has been calculated that if the old system of irrigation could be restored the value of the yield would be £31,000,000, or a gain of £7,000,000 per annum.

The Corvée.—A moment's consideration will convince the reader that each year it is necessary to carry out a very large amount of work in connection with the clearing of the canals and the building up of dykes and embankments to keep the waters of the Nile in their proper courses; moreover, new cuttings have to be made, and the ravages caused by an exceptionally high Nile must be made good before the inundation of the following year. No difficulty has ever been experienced in getting men to repair the damages done to the dykes by the river on their own immediate property, for self-protection and self-interest are sufficiently strong incentives to make men work. In the matter of works of general public utility the case is different, and from time immemorial the kings and rulers of Egypt have been compelled to force their subjects to dig and clean the necessary canals, to build dykes, and to guard the banks of the Nile during the inundation. The fairest way would be, of course, to make each village responsible for its own works, and when the interests of a number of villages are involved, to make each community supply its due proportion of labour. In practice, however, it was found that works of public utility were consistently neglected, until some calamity would force the attention of the Government to take notice of the neglect, and then the strong arm of the law would levy labour indiscriminately, and much injustice would be done. As time went on labour was levied for the performance of public works other than those connected with the river, and in dynastic times it is certain that all the great architectural wonders of the Pharaohs were raised by the hands of unpaid labourers. So long as the men were employed on works at no great distance from their villages, the hardship was not necessarily very great, and cruelty only began when they were torn from their homes and families and sent to labour in places far away from them. It was natural that terrible abuses should arise in connection with this system of

forced labour, and they were probably never greater than between 1800 and 1880.

So long as Egypt was irrigated by the basin system, which has been briefly noticed above, the forced labour arrangement was not a bad one, for during the months of the year in which the works on the canals, banks, and dykes were being carried on the agricultural population had nothing else to do. When, however, **Muḥammad 'Ali changed the system** from basin to perennial irrigation the abuses became very serious, and terrible injustice was done. Everybody had been interested in filling the basins, and the burden had fallen upon all. Under the new system the whole agricultural population was employed to do work which benefited only the few. Moreover, bodies of men were moved from district to district to work the whole summer through, whilst their own lands remained untouched. This system of daily forced labour is called **corvée**, and in the hands of Muḥammad 'Ali and his immediate successors it became the curse of the country. It will be remembered that Sa'îd Pâshâ employed the corvée on the Suez Canal, and Ismâ'îl Pâshâ used it in working all his vast estates, and even dug with it the Ibrâhimîyah Canal, which is nearly 200 miles long. Besides this, the favourite nobles of the Pâshâ of Egypt employed it, without payment, on their own estates, and any attempt at resistance on the part of the workmen was met by imprisonment, beating on the feet, or death. Practically speaking, the men of the corvée spent six months each year on canal work, and three months in protecting the river banks during the flood ; their own lands were neglected, and though they did all the work they gained no benefit from it. They had to feed themselves, and to provide spades and baskets for their work, and if lights were required at night when they were watching the river banks they had to provide lanterns, and brushwood to repair any breach which the water might make.

In Muḥammad 'Ali's time every male between the ages of 15 and 50 had to serve, and one-fourth of the number of available men was called out every 45 days. Nobles and officials, of course, abused their positions and power, and cases were common in which the corvée were doing the work which their own men ought to have done. In 1881 it was enacted that a man could free himself from the corvée by providing a substitute, or by a payment in cash, which amounted to 120 piastres in Lower Egypt and 80 piastres

in Upper Egypt; the moneys so collected were to be devoted to the reduction or suppression of forced labour. As a result of this enactment every man who could raise 25*s.* freed himself, and the whole of the **corvée fell on the poorest classes;** in fact, no man who owned more than five acres went to the corvée. In 1885 the Egyptian Government spent £30,000 on clearing canals by contract instead of by forced labour, and dredging was recommended for the larger canals; and in 1886 £250,000 were spent in the relief of the corvée, and thus, **probably for the first time in history**, the Egyptian Government contributed to the maintenance of the canals and river banks. In 1889 the **corvée was abolished**, and it was decreed that in 1890 no forced labour was to be used for the clearance of canals and repairs of banks; the Public Works Department undertook to do the whole of the earthwork repairs for the sum of £400,000. It must, however, be understood that the obligation of guarding the river banks during the inundation still devolved upon the people, and that it was, and still is, necessary to call out a number of men each year to do this. The number of men called out to guard the banks of the Nile during the flood season was 36,782 (for 100 days) in 1895, 14,180 (for 100 days) in 1900, and 19,201 (for 100 days) in 1910.

Lord Cromer thought that the present system did not "entail any very serious hardship on the population. At the same time, it is unquestionably true that the employment of forced labour for any purpose whatsoever is open to objection. Now that other more pressing matters have been disposed of, it is worthy of consideration whether the time has not come to abolish the last vestige of a bad system." This was written in 1900. Mr. Verschoyle, Inspector-General of Irrigation for Lower Egypt, thought (1904) that the policy of reducing flood watchmen in the Delta had been rather overdone during the last few years, and he reported that the banks, which had been deprived of their protection of stakes and brushwood, had suffered from water action. Under the rule of the British in Egypt the men who are required for the protection of the river banks are chosen with due regard to justice, and the slight burden which falls upon the people is carefully adjusted, every care being taken to prevent the creeping in of any abuse, and the men called out recognize the justice of the call. If the abolition of the corvée for the clearance of the canals were the only benefit which had been conferred

by the British upon the Egyptians, it alone would be sufficient to make the British Occupation of Egypt for ever remarkable.

V.—THE BARRAGES ON THE NILE.

In connection with the foregoing article on the Nile it is necessary to add here a few particulars concerning the great engineering works which have been carried out for the purpose of storing the waters of the river, and distributing them systematically according to the needs and wants of the various districts at different seasons of the year. The three greatest and most important of these are:—(1) The Barrages to the north of Cairo; (2) the Barrage at Asyûṭ; (3) the Barrage at Asnâ; (4) the Dam at Aswân.

1. The **Barrages North of Cairo.**—We have seen above that one of the Pharaohs marked the heights to which the Nile rose at Samnah, and we know that on the front of the stone quay at Thebes Shashanq I and his successors also recorded the heights of the Nile floods in various years; but, so far as we know, no attempt was ever made by the ancient Egyptians to build a dam or barrage across the main stream, or to regulate the supply of its waters on any large scale. Yet the idea of a dam must have occurred to many of the great engineers of the Pharaohs, and the only wonder is that Amenemḥat III, who did so much for the irrigation of Egypt, omitted to take in hand such an obvious work of improvement. According to Major Sir R. H. Brown, R.E. (*History of the Barrage, Cairo*, 1896), Clot Bey has put it on record that Napoleon Bonaparte prophesied that the day would come when barrages would be thrown across the Rosetta and Damietta arms of the Nile, and that these, by means of coffer dams, would allow the whole of the Nile stream to flow into either branch, and in this manner the inundation would be doubled.

Soon after Muḥammad 'Ali became Viceroy of Egypt he began to develop cotton growing, and he found that the basin system of irrigation, which was then in operation, was unsuitable for his purpose. In 1833 he decided that it was necessary to increase the water in the Damietta branch, and in order to effect this he proposed to dam the waters of the Rosetta branch, which supplied Alexandria and a whole province with water, and turn them into the Damietta branch. The Viceroy abandoned

his scheme on the suggestion of Linant de Bellefonds Bey, and agreed to his proposal to throw a barrage across the head of each branch of the Nile; and such was the Viceroy's haste to have the work completed that he ordered the Pyramids to be pulled down, and the stones of which they are built to be used in constructing the new work. With consummate tact Linant Bey proved that it would cost less to bring the stone from a quarry than from the Pyramids, and thus the Pyramids were spared. In 1833 Linant's **Barrage was begun by the corvée,** and work went on until 1835, when the cholera raged, and the buildings came to a standstill; in 1837 Linant was made Director of the Public Works Department, and, in brief, his barrage was never finished. It is said that the Viceroy regarded the cholera of 1835 as a sign that the Almighty was displeased with his attempt to interfere with the arrangements of the Nile which Nature had made. In 1842 Mougel Bey proposed to the Viceroy a barrage which could be combined with a fortress, and in 1843 he laid his plans before the Council of Roads and Bridges; the Rosetta Barrage was to have 39 arches, and the Damietta 45, each being 8 metres wide. The Damietta portion was begun in that same year, and the Rosetta portion in 1847; and Muḥammad 'Ali was so impatient that he ordered 1,000 cubic metres of concrete to be laid daily, whether it had time to "set" or not!

Mougel, the engineer, endeavoured to carry out the Viceroy's orders, even though his knowledge told him that it was bad for the work, and the result was, inasmuch as the river was 3½ feet higher that year than it was the year before, that part of the concrete was laid in running water. The current carried away the lime from it; the remainder, of course, would not set, and the underground springs, forcing their way up, destroyed the last chance of the success of the work. Mougel wished to postpone the work for a year, but the Viceroy would not permit it, and so the building went on; in 1848 Muḥammad 'Ali died, without seeing the barrage completed, and in 1853, as the result of an unfavourable report, 'Abbâs Pâshâ, the new Viceroy, dismissed Mougel, and told him to hand over his plans to Mazhar Bey. At that time, although 47,000,000 francs had been spent on the barrage, without mentioning the labour of the corvée and of soldiers, scarcely any of the piers were above the level of the water. The total cost of the barrage, with its fortifications, canal heads, etc., was about £4,000,000. In 1861 and 1863

Commissions were appointed to inquire into the barrage question, and in the latter year, because water was urgently wanted, the barrage gates were closed with the view of holding up about 4½ feet of water ; as a result, cracks appeared in the structure. In 1867 a section of 10 openings of the Rosetta Barrage separated itself from the rest of the work, and moved downstream. In 1871 Linant Bey reported that it would take five years' work and an expenditure of 25,000,000 francs to make the barrage safe. In 1876 Sir John Fowler examined the barrage, and proposed to remedy its defects for the sum of £1,200,000 ; but as Isma'îl Pâshâ had no faith in the barrage, nothing came of the matter. In the same year General J. H. Rundall, R.E., made a report on the barrage, and he estimated that repairs would cost £400,000, and the "training of the river" and new gates another £100,000. "The manner of restoring the barrage, as recommended by General Rundall, is very nearly that which was actually adopted ; and, further, the cost of the restoration was correctly estimated" (Major Brown, *Barrage*, p. 24).

In 1883 Rousseau Pâshâ, Director of Public Works, declared the only use of the barrage was to distribute the river discharge between the two branches, and that to make it fit even for this work would cost £400,000. He was in favour of pumps, and had recently signed a contract, which was to last until 1915, with a company who undertook to supply water to the Western Delta for £50,000 a year, and it was solemnly proposed to extend the system, and to irrigate Lower Egypt by pumps at an initial cost of £700,000, and an annual outlay of £248,550. The English authorities declined to adopt this proposal, and directed Mr. (now Sir) W. Willcocks to examine the barrage and to report upon it. In 1884 this eminent expert was permitted to spend £25,611 in providing the Damietta Barrage with gates and in general repairs. In June 1884, he was able to hold up water to a depth of 7 feet 2 inches in the Rosetta Barrage, and to a depth of 3 feet in the Damietta Barrage. The cotton crop that year was 3,630,000 ḳanṭârs, as against 3,186,060 ḳanṭârs in 1879, which was the greatest known crop before 1884. In 1885 about £18,246 were spent on the barrage, and the results were so successful that it was decided to restore the whole work ; the total sum spent in restoring both barrages was £465,000, and the work lasted from 1886 to 1891. When finished the barrage was able to hold up a head of about

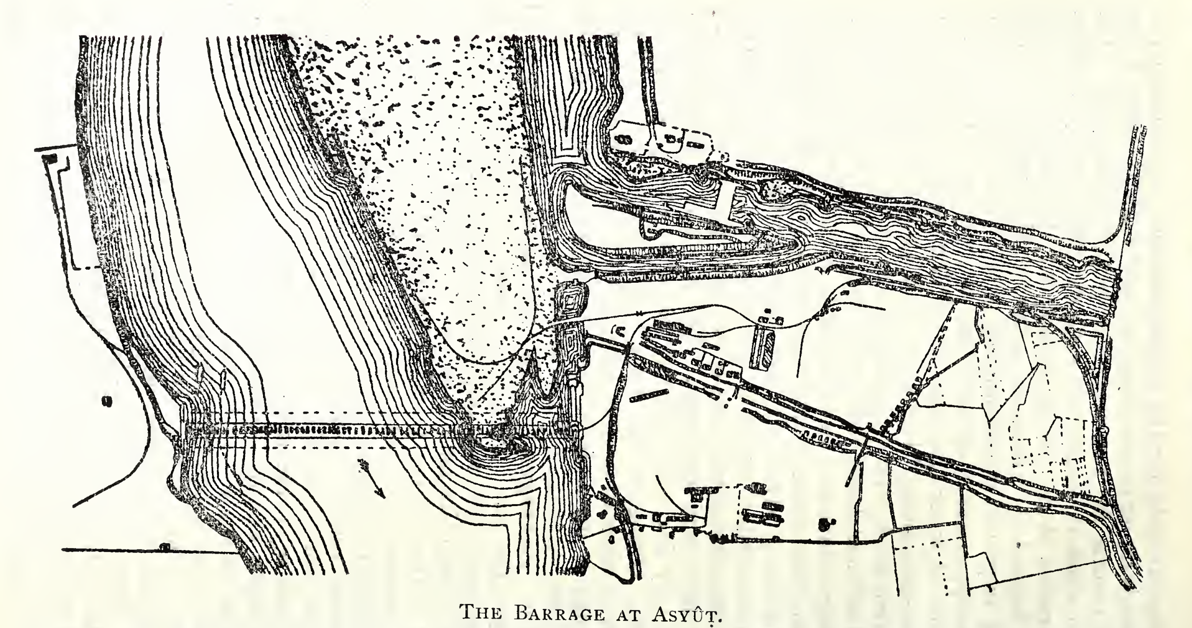
13 feet of water, and it has been doing splendid work ever since. The Rosetta Barrage has 61 arches and two locks and is 465 metres long; the Damietta Barrage has 61 arches (formerly 71) and two locks, and is 535 metres long. The two barrages are separated by a revetment wall about 1,000 metres long, and all the arches, except the two centre ones, are of 5 metres span. As a result of the completion of the barrage the cotton crop increased from 3,630,000 kanṭars in 1884 to 4,615,000 in 1894.

Thus it will be seen that Mougel's Barrage was turned into a success. It is evident that a great deal of the work which he put into it was good, but it was his misfortune to have served one impatient Viceroy, and to have been dismissed by his successor. After his dismissal in 1854 it seems that things did not prosper with him, for about the time of the restoration of the barrage he was found at Rosetta totally unprovided for. His case was brought before the Egyptian Government by Sir Colin Scott-Moncrieff, and a pension was given him which placed him beyond the reach of want.

It will be remembered that the Manûfîyah regulator, situated at the head of one of the most important canals in the Nile Delta, collapsed suddenly one evening in December, 1909. The regulator formed an integral part of the series of buildings known as the Delta Barrage, and regulated the supply of water, during both summer and flood, to the large and important district of the middle Delta. For this reason it was essential that the structure should be replaced before the rise of the Nile in August, if at all possible. Mr. Dupuis, Adviser to the Public Works Department, decided on immediate reconstruction, and contracts were accordingly arranged, since owing to extreme urgency it was not possible to call for tenders in the usual way. It being necessary to give an uninterrupted supply of water through the fallen building, it was found impossible to reconstruct the regulator on the old site. Consequently a diversion of the canal of about half a mile in length was entailed. The new site, situated in the gardens lying between the fallen regulator and the Rosetta Barrage, was cleared of its heavy timber, and excavation was begun on January 20. The final stone was laid on July 30. The new regulator is a bridge-like structure, consisting of nine arches of 16 feet 6 inches span each, with a roadway on top 23 feet wide. The piers are 24 feet high from the floor on which they rest and 6 feet 6 inches thick. There is a lock

on the eastern side for the accommodation of navigation, as this canal is the principal artery for river traffic between Cairo and Alexandria for a considerable period of the year. The floor, on which the stability of such structures mainly depends, is constructed of masonry in cement 10 feet thick and 130 feet wide. Beyond this, there is a considerable width of stone pitching to protect the natural bed of the river, which is flush with the upper surface of the floor, from erosion. To prevent infiltration of water under the floor it has been enclosed with cast-iron sheet piles, driven to a point 13 feet 6 inches below the bottom level. The diversion from end to end has been dressed off and faced with stone to protect it against scour. Very large volumes of material had to be handled in the construction, there being about 700,000 cubic yards of excavation, 40,000 cubic yards of masonry, 42,000 cubic feet of ashlar, and 27,000 cubic yards of stone pitching. The ironwork employed included 720 tons of cast-iron piling, with 400 tons for the sluices and lock gates. The structure is founded on a bed of very fine sand and silt, excavated out to a depth of 47 feet. Owing to the numerous springs and the large quantity of water to be dealt with, this entailed heavy pumping, an average of ten 12-inch pumps being employed to get the water down while the building was under construction.

2. The **Barrages South of Cairo. Barrage of Asyûṭ.**—The town of Asyûṭ is about 250 miles from Cairo by river, and is the most important of all the towns of Upper Egypt. The chief importance of the district lies in the fact that it is the starting point of the great Ibrahimîyah Canal, which is nearly 200 feet wide, and nearly 200 miles long, and supplies Middle Egypt and the Fayyûm with water. This canal carries enough water in flood-time for all purposes, but when the Nile is low its supply is insufficient for the irrigation of the lands on its banks. For many years the irrigation experts declared the necessity of a barrage at Asyûṭ, and when it was decided to make a reservoir at Aswân, it was felt that a barrage at Asyûṭ must form part of the great scheme. This barrage was planned by Sir W. Willcocks, K.C.M.G., but the original proposal was considerably modified by Sir Benjamin Baker, K.C.B., and by Sir W. Garstin, G.C.M.G. Its duty is to hold up the river level during the spring and summer months, when it is low, but when the flood is a very low one, the barrage may be called upon to raise the level then also, to insure the delivery into the canal



THE BARRAGE AT ASYÛṬ.

(From "The Barrage across the Nile at Asyûṭ," by G. H. Stephens, C.M.G., in *Minutes of Proceedings, Civi* *Engineers*, Paper No. 3,462.)

of its flood supply. The site chosen for the barrage is about a mile from the town, where the river is about 2,953 feet wide, and to make adequate room for it it was found necessary to divert a short length of the Ibrâhimîyah Canal. The highest Nile level at Asyûṭ, of which records are available, was 43 feet 7 inches above the deep channel, and the lowest 14 feet above the bed; in flood the velocity of the river is 4½ miles per hour, and at low Nile 2 miles. The barrage at Asyûṭ is an arched viaduct, somewhat similar to that near Cairo, which has already been described; the width of the roadway over it is 182 feet 11 inches, and provision is made for wheeled traffic. It contains 111 openings, each of which is 16 feet 5 inches wide, and has two sluice gates 8 feet 2 inches high; the total length of the barrage between the abutment faces is 2,691 feet. The waterway between the piers is 1,821 feet wide, and superficial area of flood waterway is 63,924 feet. The average summer level of water downstream of the barrage is 148 feet 9 inches, and upstream 157 feet, the difference between the levels being 8 feet 3 inches. The depth of the water held up by the barrage is 8 feet 2 inches. The ordinary piers are 6 feet 7 inches wide, and the abutment piers, which occur after every ninth opening, 13 feet 1½ inches. The height from the floor of the barrage to the springing of the arches is 35 feet 1 inch, and to the roadway 41 feet. The Asyûṭ Barrage was built by Messrs. John Aird and Co., who entered into an arrangement to construct:—

	£
1. The Aswân Dam and Lock for	1,400,000
2. The Asyûṭ Dam and Lock for	425,000
3. The Ibrâhimîyah Regulator and Lock for	85,000

Land and subsidiary works were to cost £49,000, and customs duty on material and plant was calculated at £41,000. Messrs. John Aird signed the contract on February 20th, 1898, and agreed to complete the works in five years from July 1st, 1898. The Egyptian Government were to pay nothing until July 1st, 1903, when they were to begin to pay a series of half-yearly instalments of £78,613. The subsidiary works in the shape of canals and drains which it was necessary to make in connection with the dams were estimated to cost £1,180,000.

From Lord Cromer's Report (April, 1904, p. 21) we see that the accounts between Messrs. John Aird and the Egyptian Government have been finally closed, and that the precise sum paid for the Aswân Dam and the Asyûṭ Barrage has been

£E.3,439,864, including expropriation and indemnities £E.127,626, a lock £E.47,532, and minor works £E.6,000. The General Reserve Fund contributed £E.1,346,699, the Special Reserve Fund £E.143,165, and £E.1,950,000 was paid to Messrs. Aird with certificates. "Under the arrangement negotiated with Sir Ernest Cassel, the Government in order to redeem the money raised on the certificates, has to pay 60 six-monthly instalments of £76,648 each, the first of which fell due on July 1st, 1903, while the last will fall due on January 1st, 1933. In other words, the Government will pay £E.4,598,880 in interest and sinking fund before the certificates are fully redeemed." With the view of deriving the fullest possible benefit from the construction of the dams at Aswân and Asyûṭ it has been found necessary to convert a large tract of land in Middle Egypt from basin to perennial irrigation; the cost of converting 451,000 acres will be £E.3,200,000.

3. The **Barrage at Asnâ.**—The great Dam at Aswân and the Asyûṭ Barrage had already demonstrated the value of such works in Egypt, and the formal opening by the Khedive in February, 1909, of the Asnâ Barrage constituted an important addition to these irrigation works. Asnâ, with 17,316 inhabitants, is situated in Upper Egypt, on the west bank of the Nile, and the work now completed will, even in the lowest of floods, ensure a plentiful supply of water to a great tract of land in the Nile valley from Asnâ northwards. The function of the Asnâ Barrage is to hold up the water in low floods.

From the centre line of the lock to the east abutment the length is 2,868 feet; there are 120 openings, 16 feet 5 inches wide; 11 large abutment piers, 13 feet in thickness, all 37 feet 8¾ inches high, and 108 piers, 6 feet 6 inches in thickness. The barrage carries a roadway 19 feet 8 inches wide, and a tramway track runs along the whole length of the work, including the swing bridge of the lock. The main contract was in the hands of Messrs. John Aird and Co., and the preliminary work itself was an extensive undertaking. Granite, sandstone, and limestone quarries had to be opened up, temporary roads laid, and at one time no less than 24 miles of railway were in operation; tugs, barges, and a general flotilla had to be requisitioned for river transport; living quarters, workshops, and a hospital erected, while the problems surrounding a good water supply and proper sanitary arrangements for a staff of from 8,000 to 10,000 hands had to be solved.

Work on the foundations was started in November, 1906, and the working areas from both east and west banks were such that the foundations and the necessary superstructure could be built above high flood level, so as to ensure continuous work in the superstructure during flood time. Meanwhile the ordinary traffic of the river had a fairway in mid-stream. A large sand-bank having formed itself adjacent to the east bank, it was a comparatively easy matter to take out as much excavation as would ensure 37 piers being built, while on the west bank it was deemed advisable to enclose as much of the foundations as would take in the lock and 26 piers, and both sides were completed in readiness to allow the flood water to pass over the work at the end of the season. As the foundations were built in wet running sand, cast-iron piles were driven, enclosing the entire floor, the joints being grouted to form an effective cut off, constituting a huge box inside which the actual foundations were built. The portion of each pile above foundation level was caulked with oakum, and the entire joint made absolutely watertight. The weight of the piles, which were cast by Messrs. Head, Wrightson, and Company, was each about one ton, and two rows, 60 feet 9 inches apart, were driven parallel across the river. Puddle clay topped with limestone pitching, 65 feet 7 inches wide, has been employed on the upstream side to protect the foundations from water percolation, while 131 feet 3 inches of limestone pitching is laid on the downstream side, forming an apron to resist the rush of water through the sluices. The floor is composed of concrete, 3 feet $3\frac{3}{8}$ inches thick, on the top of which 6 feet $6\frac{3}{4}$ inches of granite rubble masonry is built. The superstructure is built of sandstone. The piers are rounded to a radius of half their thickness on the upstream side, so as to form a cutwater, while the downstream ends are built square and have a batter of 15 per cent. There are three parapet walls, and between the two upstream parapets, over the gate grooves, winches to lift and lower the gates travel on flat-bottomed rails, laid on longitudinal timbers fixed in the coping. There are two gates to each opening, each 9 feet 10 inches deep, which work vertically in grooves built in the pier. The lock is 262 feet 6 inches long from sill to sill, and 52 feet 6 inches wide, the gates being 40 feet deep. The lock copings and steps are of granite. The contract for the swing bridge over the lock, the lock gates, and sluice gates was in the hands of Messrs. Ransomes

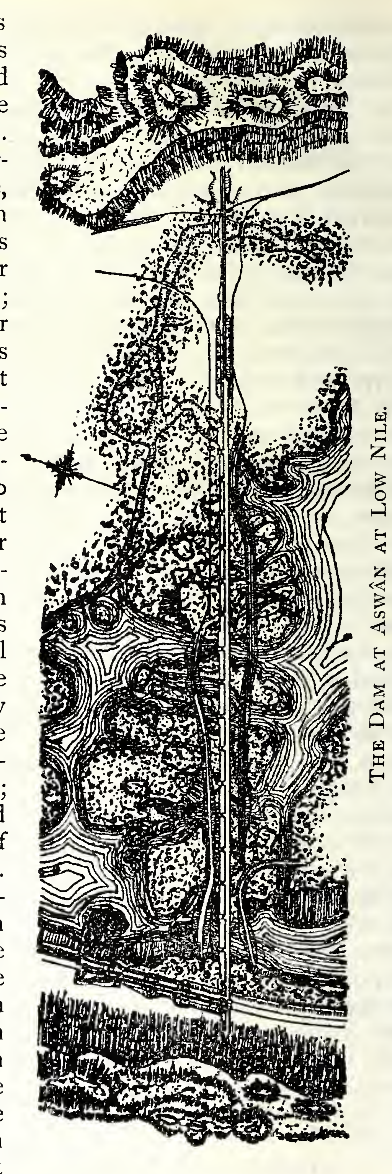
and Rapier, of Ipswich. After the floods of 1907 it was found that the sand-bank on the east side of the river, referred to above, still remained, and operations in line of the barrage were commenced in November of that year, the excavation being tipped into the river, at the same time forming temporary sudds as the work advanced westwards. There was at that time an intervening space of 1,280 feet between the two foundation ends which remained to be built in, and although work from the westward had to be carried on with extreme caution, another 830 feet from the east bank was successfully enclosed and the water pumped out. Gwynne's centrifugal pumps were used throughout. With the exception of a small relief channel, the river was at the close of this work confined to a space of 740 feet. This meant that the westward sudd was subjected to a considerable rush of water, necessitating the protection of the toe of the outside slope, and meanwhile the work was pushed on with such speed that by the beginning of February, 1908, the space between the foundation ends was reduced to 450 feet. The most difficult part of the work followed—the building of new sudds in the stream channel, now greatly curtailed, with the view to forming a junction with the dry built sudd on the west bank floor. To carry out this work the river traffic was diverted through the lock, but it was only after the expenditure of valuable time that the sudds were finally joined, and but twelve weeks remained in which to build in the remaining portion of the work before the river attained the level of the temporary sudds. This was an anxious time, but by concentrating labour on the foundations they were finally joined up in May, 1908. The water was then allowed to rise inside slowly enough to enable the pier masonry to be carried up in advance. The piers having all been brought up to springing level, masonry in superstructure for arches and parapets went on continuously, and the work was actually completed a year and a half within the contract time. It should be pointed out that the scheme includes two small accessory works in the form of canal head regulators, the one for the Asfûn canal, on the west bank, having five openings, while the Kallabîyah canal regulator, on the east bank, has four. In most particulars the design of these subsidiary works follows that of the barrage itself, except that no piling was deemed necessary. Mr. (now Sir) A. L. Webb, Adviser to the Ministry of Public Works, is responsible for the design of the barrage, Mr. E. H. Lloyd acting as resident engineer. The

contractors were represented in Egypt by Mr. H. McClure. The total cost of the works is about £1,000,000. (*Times*, January 13, 1909.)

4. The **Aswân Dam and Reservoir.**—In the year 1890 the Egyptian Government instructed Sir Colin Scott-Moncrieff and Sir William Willcocks to study the question of making a reservoir, and after three years' labour the latter gentleman reported that the best site for a reservoir was at the head of the First Cataract, near Aswân, where he suggested that a masonry dam should be built. Sir William Garstin concurred in this view, but because of the magnitude of the work suggested that a Commission should be appointed to advise the Government. The Commission spent three months in Egypt and examined all the proposed sites, and they decided that Aswân was the best place for a reservoir-dam, but recommended certain modifications, all of which tended to make the design approach more closely to that of a solid dam, and to increase its stability. As a result it was decided to build a dam across the head of the Aswân Cataract, to the north of the Island of Philæ. The maximum head was to be 85 feet, and the volume of water stored 88,300,000,000 cubic feet; the level of the water held up was to be 374 feet above the mean level of the Mediterranean Sea. When the details of the proposal became known, a great outcry was raised by the principal archæological societies of Europe, and a modified plan was made, which enabled the level of the water held up to be reduced to 348 feet above mean sea-level. When the plans were passed in 1895 there was no money to be had for such a great undertaking, and the beginning of operations was delayed until 1898. Early in that year Lord Cromer wrote:— "The most crying want of the country at present is an increase in the water supply. . . . All that can be done with the present supply of Nile water has been already accomplished." As we have seen above, Messrs. Aird & Co. agreed to construct the reservoir-dam and the barrage at Asyûṭ for about £2,000,000. The Egyptian Government were not required to pay any money in cash, except as regards excess quantities over the contract quantities, and Sir Ernest Cassel agreed to take over the bonds, and to pay the contractors on the usual monthly certificates; bonds were issued for £4,716,780, and repayment was to be made in 60 half-yearly instalments of £78,613.

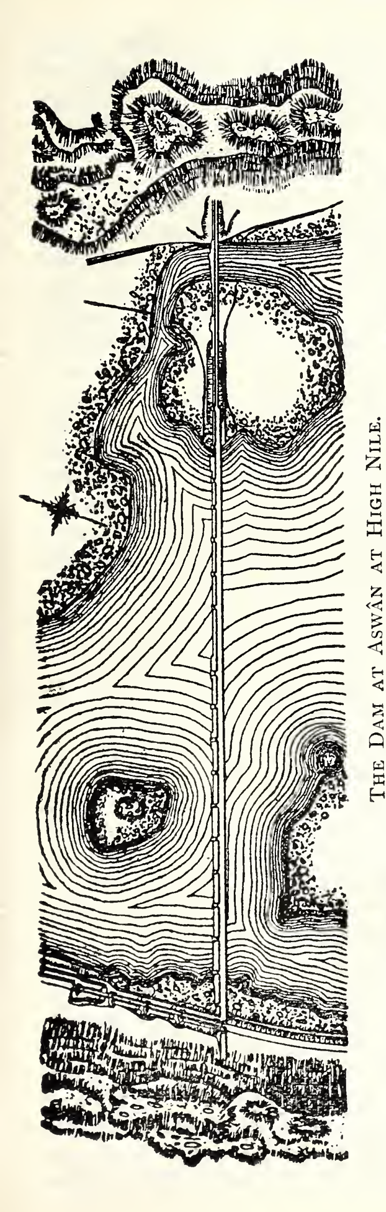
The **Dam** crosses the valley in a straight line, passing over

the five summer channels of the river; the valley is 2,185 yards wide, and the dam is built on the coarse-grained red granite. At flood-time the waterway is 1,530 yards wide, with a maximum depth of 56 feet. The dam is intended to hold up water to the level of 348 feet; the lowest level of water on the downstream side is 282 feet, and the greatest head of water will therefore be 66 feet. The storage capacity is estimated at 37,612,000,000 cubic feet. No attempt is made to store water until the river is practically free from silt, which occurs about three months after the Nile is in full flood. Usually the Nile reaches its maximum early in September, but the reservoir is not filled before December–February; the water is discharged during the months of May, June, and July. The total fall in water-level from Philæ to Aswân is 16 feet 5 inches. The mean low Nile at Philæ is 295 feet above mean sea-level, and the mean high 321 feet; between high and low Nile the river rises 26 feet. The rise of the water upstream of the dam is 52½ feet



THE DAM AT ASWÂN AT LOW NILE.

(From Fitzmaurice and Stokes, "On the Nile Reservoir and Sluices, Assuan," in the *Minutes of Proceedings, Civil Engineers*, vol. clii, Session 1902–1903, Part ii, London, 1903.)



THE DAM AT ASWÂN AT HIGH NILE.

(From Fitzmaurice and Stokes, "On the Nile Reservoir and Sluices, Assuan," in the *Minutes of Proceedings, Civil Engineers*, vol. clii, Session 1902–1903, Part ii, London, 1903.)

above low Nile, and 26 feet 3 inches above high Nile; the effect of the reservoir is felt at a distance of 140 miles south of the dam. The sluices are 180 in number, and they are arranged at four different levels, viz., 328 feet, 315 feet, $301\frac{3}{4}$ feet, and 287 feet; only 130 sluices are used for regulating the discharge, and the remaining 50 are required for giving sufficient waterway to the Nile when in flood. About July 5th all the sluices are open, and the Nile is rising rapidly. At the end of July the discharge of the Nile is 159,000 cubic feet per second, and at the end of August the discharge is nearly 353,000 cubic feet per second. On December 1st the first of the 50 sliding gates at the level of $301\frac{3}{4}$ feet is lowered, and the remaining 49 soon after; the 65 gates with rollers at the level of 287 feet are gradually shut, and next the 25 roller sluices are lowered, and early in February the sluices at the level of 315 feet are closed by degrees. By the end of February the reservoir usually is filled, and by July 7th it is empty.

Work on the dam began in the summer of 1898, under the superintendence of Mr. John A. C. Blue, C.E., and Mr. (now Sir) M. Fitzmaurice, C.M.G., etc., and the foundation-stone was laid by H.R.H. the Duke of Connaught on February 12th, 1899. All the foundation work of the dam was completed in the summer of 1901, and all the masonry was finished in June, 1902, one year before the contract time, and less than three and a half years after the first stone was laid. The contract quantity of excavation in the dam and locks was 408,000 cubic yards, and the actual quantity excavated was 824,000 cubic yards. The total contract quantity of masonry was 484,000 cubic yards, and the actual amount built was 708,000 cubic yards. In places the dam is over 100 feet high, and about 90 feet thick at the base.

The actual cash cost of the works came out to nearly £2,400,000, which is practically £10 for every million gallons of water held up. Sir W. Garstin calculated that the volume of water capable of being stored would be 1,065,000,000 cubic metres. While the dam was being made it was necessary to cut a canal for the passage of large boats up and down the river; this canal was cut through the granite hill on the west side of the Nile, and 26,000 cubic yards of granite were blasted away in its making. The total length of the canal is 2,180 yards; it is 52 feet deep, and is 40 feet wide at the bottom. Since there is a difference of 66 feet between the water levels up and down stream, four locks are provided: each lock is 263 feet long and 31 feet wide at the bottom. The two upper gates are 59 feet deep, and weigh about 105 tons each, exclusive of the bascule; the three other gates are 46, 36, and 26 feet deep respectively. When we consider that through the Aswân Dam and the Asyûṭ Barrage the annual wealth of the country will be increased by about £E.2,600,000, that the direct gain to the Government will be about £E.380,000 a year, and that the value of the Government lands which will be reclaimed will be increased by more than £E.1,000,000, there can be no question about the wisdom of the decision of the Egyptian Government to undertake the works. And few will disagree with Lord Cromer's assertion that with the "moderate expenditure of roughly £E.3,500,000, more good has been done to the people of Egypt than by the £E.100,000,000 of debt which Isma'îl Pâshâ contracted, and for the most part squandered."

As regards the results obtained by the construction of the

Asyûṭ Barrage and the Aswân Dam, the main facts are as follows:—These two dams cost £E.3,237,000. Up to the end of 1904 a sum of £E.1,757,000 had been spent in subsidiary works in Middle Egypt, which must be constructed before the full measure of beneficial result can be derived from the construction of the dams. The total area so far affected is about 1,276,000 acres. The increased annual rental of these lands is estimated at about £E.1,553,000; their increased sale value at about £E.15,730,000. About 205,000 acres of land, formerly watered by the basin-irrigation system, have been adapted to perennial irrigation. About 246,000 acres remain to be similarly treated. It was estimated that the work of converting the remaining 246,000 acres would cost about £E.1,424,000, and that the work would be completed in 1908. Thus, Sir William Garstin says, "From expenditure of some 6½ millions—by the end of 1908—the annual rental value of the land affected in Middle Egypt should be increased by £E.2,637,000, and its sale value by £E.26,570,000." Lord Cromer doubts if, in the records of engineering work, another instance can be quoted of such results being achieved with so relatively small an outlay of capital (*Egypt*, No. 1 (1906), p. 34).

In 1907 the Egyptian Government decided (on account of the poor inundation, and the fact that 96,985 faddâns of land were wholly unwatered, and 15,400 were only partly watered) to **raise the Aswân Dam** a further height of 5 metres, for the result of this would be to raise the water level in the reservoir by 7 metres, and more than double its storage capacity. The increased water supply would, it was calculated, permit 1,000,000 faddâns in the Delta, then lying waste, to be irrigated. The design for the raising of the dam was the work of the late Sir Benjamin Baker, and the contractors chosen were Messrs. John Aird & Co. and Messrs. Ransomes and Rapier. Work was begun in May, 1907, and in 1907–8 £E.369,000 was expended. In 1909 a further sum of £E.176,000 was expended. The total cost of the work was expected to be £E.1,500,000, and the raising of the dam was completed in 1912. The protective works carried out in 1904–6 are found to be efficient and satisfactory in every way. The raising of the dam was postponed for a time, first, because it was found necessary to construct a solid masonry apron downstream of the dam sluices, in order to protect the rock from

the severe action of the water issuing through them; and, secondly, because certain mathematicians of great repute had expressed doubts as to whether the calculations heretofore adopted for determining the stresses and the stability of masonry dams covered a sufficiently wide range, and whether the consideration of certain important factors had not been neglected. The masonry apron was finished in due course and the other works were carried out satisfactorily.

Here, naturally, reference must be made to the effect of the Aswân Dam on the temples of the Island of Philæ. When the first scheme was proposed, it was at once seen that the temple of Philæ would be drowned during the filling of the reservoir; in the modified scheme the water was expected only to reach the level of the floor of the temple. An examination by experts showed that a large portion of the main temple was founded on the rock, and that the southern end of the colonnade was built almost entirely on silt. At one side of the colonnade the cross-walls of a quay-wall had been carried down to the rock, and the long row of pillars forming that side of the colonnade was carried on sandstone sills, extending from cross-wall to cross-wall. The sills were cracked and broken, and many were supported only by the silt between the walls. The ground between the walls was excavated, steel girders were fixed below ground from quay-wall to quay-wall, and the steel girders were then completely surrounded by cement masonry, made watertight by forcing in cement grout. The other side of the colonnade was underpinned in cement masonry, the underpinning in some cases being carried down to a depth of 25 or 30 feet from ground level; Pharaoh's Bed and many other buildings were similarly treated. In nearly all places where the underpinning was done, the superstructure of sandstone, in some places 60 or 70 feet high, was in a very dilapidated condition. The columns were out of the vertical, and the sandstone lintels, weighing many tons, were often cracked right through. The cost of these works was about £22,000.

In the *Journal de Genève* (December 17th, 1903), M. Naville, who speaks with unquestionable authority on this subject, bears generous testimony to the archæological value of the work performed by the Egyptian Government, and says:—"Je suis de ceux qui, à plusieurs reprises, soit par la voie de la presse, soit dans les Congrès scientifiques, ont protesté contre la constitution d'un barrage à Assouan. J'estime que les archéo-

logues ont lieu d'être satisfaits. Le monument est à l'abri de toute dégradation pour de longues années, et il ne semble pas que l'eau ait un effet fâcheux sur la pierre, sauf peut-être dans quelques chambres, qui, n'ayant d'autre ouverture qu'une porte basse, conservent nécessairement l'humidité et se couvrent de salpêtre. On peut même se demander si, à certains égards, le Temple de Philé n'est pas aujourd'hui dans des conditions meilleures que la plupart des édifices Egyptiens. Depuis plusieurs années les grands temples passent par ce qui j'appellerais une crise de faiblesse sénile. . . . À Philé il serait arrivé la même chose qu'aux autres. Le temple se serait dégradé petit à petit ; on aurait vu tomber tantôt une colonne, tantôt une architrave, et il aurait fallu attendre pour le consolider d'avoir les ressources suffisantes. Maintenant cela est fait, et pour longtemps, et tout en sachant gré au Gouvernement Égyptien de l'empressement qu'il a mis à faire ce sacrifice pécuniaire, nous aimons à croire que nos protestations n'ont pas été sans influence sur sa décision."

Professor Maspero says, "L'Île de Philae continue à se bien comporter, et tout danger immédiat paraît être écarté. Le salpêtre se produit en quantité moins grande, et s'enlève plus aisément que les premières années. Tout va bien de ce côté pour le moment."

Sir W. Garstin has no doubt that the stability of the temples of Philæ has not suffered by their submersion, but he calls attention to the band of saturated stone, from 2 feet to 2 feet 6 inches deep, which is immediately above the water line. In this band salts deleterious to the masonry have made their appearance. As regards the remedy for this evil, the general opinion appears to be that the only one possible is to wash the stone work thoroughly and carefully, as soon as the water has subsided, thus getting rid of the salts. These are reported as coming away easily. In October, 1907, a Committee was appointed by the Ministry of Public Works to report on the structural stability of the temples at Philæ, to study the salt efflorescence and the discoloration of the walls, etc. This Committee found in 1908 that "there was no evidence of their "stability having been in any way affected, or that any one of "them had moved since the underpinning operations in 1902." And they reported, "it may be confidently stated that, in con-"sequence of the work which was done in 1902 in under-"pinning and consolidating the temples and other structures "on Philæ Island, these buildings are now far more safely

"founded than they have ever been, except in the case of "those which were originally built on the granite rock, and "which, therefore, were never endangered; that after five "submersions no damage from settlement has occurred, and "there is no sign of any movement except in the case of a "few steps and pavement slabs which are laid on loose filling, "and even here the movement is slight and of no importance. "There is no temple in the Nile Valley at the present time "which is more secured against failure by settlement or by "collapse under any conditions, short of a violent earthquake, "than those on Philæ Island." As regards the salt efflorescence, the Committee found that the "action is purely "mechanical, and in no way a chemically corrosive one," and their Summary stated:—1. Beyond the usual decay of old age no special destruction of the Philæ temples is taking place, except a local disintegration immediately above high-water mark. 2. This local disintegration, which is purely physical, is confined to the surface layers of the stones. 3. This injury will cease at the present spots when the water level is raised, but will be transferred, though to a lessened extent, to fresh places just above any temporary high-water level. 4. The river water alone has no appreciable action, either erosive or corrosive, upon the stone; the wave action shows no sign, either on the quay walls or on the buildings, of being effective. 5. The grey discoloration of the submerged stone is due to minute filaments of dead algæ; these do no harm, but are not readily removable. The experts employed to make the examination of the buildings, chemical analyses, etc., were Mr. E. T. Richmond, Mr. A. Lucas, F.I.C., and Captain H. G. Lyons, R.E., the last named being also responsible for the Committee's Report. But in spite of all these assurances from eminent authorities the 61 temples of Philæ are deteriorating, and the condition of the Great Temple and the Temple of Nectanebo in 1915 was such that the Service of Antiquities sent one of its officials, Signor Barsanti, to carry out repairs on these buildings. When he arrived at Philæ he found that when the Dam was full of water the previous year some boatman had sailed his boat close up to the buildings on the island, and that either in coming or going he had fouled the columns and had knocked three of them down. Barsanti executed all the repairs possible under the circumstances, but his conclusions are summed up in the following words: "Les inscriptions en relief souffrent de leur immersion prolongée

succedant à l'exposition au soleil et il faut se résigner à les voir peu à peu disparaître" (*Annales du Service*, tome XVIII, p 25).

VI.—THE MODERN EGYPTIANS.

Language.—The language most commonly spoken among the modern Egyptians is **Arabic**, and the writers in the native newspapers and scientific journals have succeeded in making it flexible enough to express the most modern ideas in connection with politics, science, and philosophy. Arabic is a member of the Southern group of Semitic languages, and many dialects of it are known ; the dialect of Egypt is one of the most interesting, although it differs very widely from the Arabic language of the Ḳur'ân and the oldest commentaries on that work. There are three vowels in Arabic, *a*, *i*, and *u* ; it has neither *e* nor *o* ; *a*, *i* and *u* are made long by adding ا *alif*, ي *yê* and و *wau*, respectively. Arabic is, like Hebrew and Syriac, read from right to left. The Arabic alphabet is as follows :—

Alif	ا			Used with a vowel, a
Bâ	بـ	or	ب	B
Tâ	تـ	or	ت	T
Thâ	ثـ	or	ث	Th
Gîm	جـ	or	ج	G hard in Egypt.
Ḥâ	حـ	or	ح	Ḥ soft guttural.
Khâ	خـ	or	خ	Kh
Dâl	د			D
Dhâl	ذ			D or Z
Rê	ر			R
Zê	ز			Z
Sin	سـ	or	س	S
Shîn	شـ	or	ش	Sh
Ṣâd	صـ	or	ص	Ṣ sharp S
Ḍâd	ضـ	or	ض	Ḍ a palatal.

Ṭâ	ط			Ṭ a palatal.
Ẓâ	ظ			Ẓ
'Ain	ع	or	ع	' a guttural.
Ghain	غ	or	غ	Gh a guttural.
Fê	ف	or	ف	F
Ḳâf	ق	or	ق	Ḳ like Alif in Egypt.
Kâf	ك			K
Lâm	ل	or	ل	L
Mîm	م	or	م	M
Nûn	ن	or	ن	N
Hê	ه	or	ه	H
Wau	و			W
Yê	ي	or	ى	Y

1. The **Ancient Egyptians.**—The Valley of the Nile has in all periods been inhabited by peoples of different races, much as it is to-day. In the earliest times the immediate dwellers on its banks were natives of the various countries through which the Nile flowed. But these were always being invaded by the tribes who lived in the countries on the east and west of the Nile. Some of these settled down by the Nile, married wives and reared families, and occupied effectively many parts of the Nile Valley; and became in fact Egyptians. In a few generations the posterity of these invaders acquired all the physical characteristics of the indigenous dweller on the Nile. The native civilisation of the Egyptians was modified chiefly by the peoples who came from Western Asia, commonly called **Hamites** and **Semites**, and from the country to the west of the Nile, called **Libyans**. It is probable that there was a steady inflow of all these peoples in all periods, and invasions by them must have taken place sometimes suddenly, on a large scale. But in spite of such inflow and invasions the writer believes that the primary origin of the Egyptians was African and not Asian. There is no doubt that the Semites and Hamites were superior to the Egyptians intellectually, and that the influence which both peoples had upon the dwellers on the Nile was far-reaching. The Egyptians learned a great deal from them and adopted

many of their improvements in agriculture and building, and absorbed many of their words into their language. According to some authorities the Hamites were an older people than the Semites, and it has been suggested that the earliest Semitic language was based upon Hamitic speech. Be this as it may, it is certain that at some time or other the Semites and Egyptians entered into very close relationship, and that each people influenced the other very considerably; but whether this relationship was due to war or trade it is impossible to say. That this relationship existed there is no room for doubt. The whole question is one of great difficulty, and at present there is not sufficient evidence to show when the Semites and Hamites began to invade the Nile Valley, or by what routes they came. They may have crossed at Bâb al-Mandib, or from the Peninsula of Sinai, or at Al-Ḳanṭarah, the "Bridge of Nations," or they may have embarked at some port of Southern Arabia and sailed up the Red Sea to the ports now called Sawâkin and Ḳuṣêr.

The visitor who will take the trouble to stand in any of the large bâzârs of Cairo, or in the Mûski, during the early busy hours of the day will see for himself that the population of Egypt comprises the Fallâḥîn, Copts, Badâwîn, Jews, Turks, Negroes, Nubians, Abyssinians, Armenians, and Europeans.

2. The **Fallâḥîn**, or what may be termed the **Arab-Egyptians**, form the bulk of the population of Egypt, and it has been asserted that 92·2 per cent. of the population of Egypt belong to this class. They are descended from the Arab tribes which settled in Egypt soon after the conquest of the country by 'Amr, the commander-in-chief of 'Omar, the Khalîfah. When these tribes left the desert and began to live a non-nomad life, they married among the indigenous people, and their offspring, most of whom embraced Islâm, resembled in many particulars the ancient Egyptians. Arab-Egyptians are usually about 5 feet 8 inches or 5 feet 9 inches in height, and in mature age most of them are remarkably well proportioned; the men are muscular and robust, and the women are beautifully formed, and neither sex is too fat. In Cairo and the northern provinces they have a yellowish but clear complexion, but further south it is darker and coarser. In the extreme south the people have a brown complexion, which becomes darker as we approach Nubia.

The countenance of the **men** is of an oval form, the forehead is of moderate size, seldom high, but generally prominent. The eyes are often deep-sunk, and are black and brilliant;

the nose is straight, but rather thick; the mouth is well formed, the lips are rather full, the teeth are particularly good and white, and the scanty beard is black and curly. The Fallâḥîn, from constant exposure to the sun, have a habit of half-shutting their eyes, which often causes them to appear more deep-sunk than they are. Formerly a great number of the Egyptians were blind in one or both eyes, which was due partly to dirt and disease (ophthalmia), and partly to their own act, for many men, it is said, used to make one eye blind by squeezing into it the juice of a plant, in order to avoid military service. It is said that one of the autocratic rulers of the land, who refused to be defeated by such an artifice, raised a battalion of men who were blind in one eye; and when the people began cutting off a finger from the right hand in order to disqualify them for military service, the same Pâshâ raised another battalion, each member of which lacked a finger of the right hand. In 1902 Sir Ernest Cassel constituted a Trust with a capital of £40,000, the interest of which was to be devoted to the treatment of those suffering from diseases of the eye. In July, 1903, Dr. MacCallan, an English ophthalmic surgeon, was appointed to be in charge of the work connected with this Fund. Tents, equipment, and instruments were purchased, and a native medical attendant, together with the necessary staff, was engaged, and a travelling hospital was erected at Manûf. The Egyptians generally shave portions of the beard above and below the lower jaw, and likewise a small portion under the lower lip, leaving, however, after the example of the Prophet, the hairs that grow in the middle under the mouth; sometimes they pluck out these hairs. None shaves the moustache; the grey beard is much respected, and only those of Persian origin make it orange colour or bright red by treatment with lime. Usually the Egyptians shave all the hair, or leave only a small tuft, which is called *shûsha*, upon the crown of the head. Hair which is cut off the human head is usually buried. The tuft of hair is left so that, should the head ever be cut off by an infidel, he may have something to hold it by, and so be prevented from putting his fingers into the mouth to carry it.

The **women** are characterized by a broad, oval countenance, and their eyes are black, large, and of a long almond shape, with long and beautiful lashes. The eyes are beautified by blackening the edges of the eyelids, both above and below the eye, with a black powder called "**koḥl**," which is made from

the smoke-black of a kind of aromatic resin, and also from the smoke-black of almond shells. These kinds of "koḥl" are used merely for ornament, but several mineral preparations are known, and these are believed to possess healing properties. Koḥl is applied to the eyelids with a small instrument made of wood, ivory, or silver, tapering towards the end, but blunt; this is moistened, and, having been dipped in the powder, is drawn along the edges of the eyelids. The ancient Egyptians and the Hebrews also used koḥl for the eyes, and there is little doubt that in the earliest times the object of its use was medicinal rather than ornamental. The nose is straight, the lips are usually fuller than those of men, and the hair is black and glossy, sometimes coarse and crisp, but never woolly. Fallâḥîn women, as well as those of the upper classes, stain the nails of the fingers and toes with "**ḥenna,**" which gives them a deep orange colour. Some dye the tips of the fingers and toes as high as the first joint, and the whole of the inside of the hand and the sole of the foot. Many women **tattoo** blue marks upon the face, hands, arms, feet, and the middle of the breast; the punctures are made with a bundle of seven needles, and the colouring substance which is rubbed in is usually indigo. Tribal marks may often be seen on the faces both of men and women.

The **dress of the fallâḥ** consists of a pair of drawers, a long blue gown of linen or cotton, and a white or red girdle or a belt. The **turban** is wound round the *tarbûsh*, when the fallâḥ has money enough to buy one, and in cold weather a skull-cap and cloak are worn. The dress of both men and women in Egypt, as elsewhere, varies according to their means and individual fancies. Most of the women of the lower classes wear a number of cheap ornaments, such as **nose-rings, ear-rings, necklaces, bracelets,** etc. The nose-ring is usually made of brass, and has a few beads of coloured glass attached to it. The Fallâḥin usually lead hard lives, and their earnings are small. Their **food** consists of maize or millet, bread, milk, new cheese, eggs, salted fish, cucumbers, melons, gourds, and onions and other vegetables, which they eat raw. The ears of maize are often roasted and eaten; among the poorest people of all rice is rarely seen, and meat never. Nearly every man smokes, and formerly he had nothing but native **tobacco,** which was very cheap; the leaves of the plant were merely dried and broken up. The women work harder than the men, for they have to prepare and cook the food,

bring the water from the river, and make the fuel, which is composed of cattle dung and chopped straw; formerly they had to make the linen or cotton cloth required by the family, but much of this is now purchased in the bâzârs. In many districts the wife is still practically a maid-of-all-work and the bearer of all burdens, and the husband perpetuates, in respect of her, many of the customs which have come down to him from his ancestors, the wild, marauding tribes of the desert.

3. The **Copts** are the direct descendants of the ancient Egyptians, and inhabit chiefly the cities of Upper Egypt. They number less than one million, and most of them are engaged in the trades of goldsmiths, cloth-workers, etc., and a large number of the clerks in the postal, telegraph, and other Government offices in Egypt are drawn from their community. The name "Copt" (Ḳubṭ or Ḳibṭ) is the Arabic form of the Coptic form of the Greek name for "Egyptian," *Αἰγύπτιος*, though some would derive it from "Ḳubṭ," the name of the city of Coptos, to which large numbers of the Egyptian Christians retired during the fierce persecutions which broke out against the Christians in Roman times. Though there are some striking points of resemblance between the Copts and the ancient Egyptians, there is a considerable difference between them; this difference is, however, easily accounted for by the intermarriage of the ancestors of the modern Copts with foreigners. The complexion of the Copts varies from a pale yellow to a deep brown, according to the part of the country in which they live. The eyes are large, elongated, and black, and they incline from the nose upwards; the nose is straight, but is wide and rounded at the end; the lips are rather thick, and the hair is black and curly. In stature the Copts are slightly under middle size. The women paint their eyes with koḥl, and many of them tattoo the cross on their faces and hands. Their male children are circumcised. The Copts wear garments of a subdued colour, and can frequently be distinguished from the Muḥammadans by their dress. The women veil their faces, both in public and private, and a generation or so ago the unmarried women wore white veils.

The Copts are Christians, and belong to the sect of the **Eutychians**, or followers of Eutyches, whose confession of faith was as follows: "I worship the Father with the Son, and the Son with the Father, and the Holy Ghost with the Father and the Son. I acknowledge that the bodily presence of the Son arose from the body of the Holy Virgin, and that He

became perfect man for the sake of our salvation. I acknowledge that our Lord, before the union (of the Godhead and manhood), had two natures; but, after the union, I confess but one." In other words, he abandoned "the distinction of the two natures in Christ to the unity of the person to such an extent as to make the incarnation an absorption of the human nature by the divine, or a deification of human nature, even of the body." He believed that Christ had but one composite nature, and his followers in their liturgies declared that God had been crucified. The doctrines which Eutyches rejected were embodied in the "Definition of Faith," which was promulgated by the Council of Chalcedon in 451, thus: "We then, following the holy Fathers, all with one consent teach men to confess one and the same Son. One Lord Jesus Christ; the same perfect in Godhead and also perfect in manhood; truly God and truly man, of a reasonable soul and body; consubstantial with the Father according to the Godhead, and consubstantial with us according to the manhood; in all things like unto us without sin; begotten before all ages of the Father according to the Godhead, and in these latter days, for us and for our salvation, born of Mary, the Virgin Mother of God, according to the manhood; one and the same Christ, Son, Lord, Only Begotten, to be acknowledged in two natures, inconfusedly, unchangeably, indivisibly, inseparably, the distinction of natures being by no means taken away by the union, but rather the property of each nature being preserved, and concurring in one person and one hypostasis, not parted or divided into two persons, but one and the same Son and Only Begotten, God the Word, the Lord Jesus Christ, as the prophets from the beginning have declared concerning Him, and the Lord Jesus Christ Himself has taught us, and the creed of the holy Fathers has delivered to us."

Because the Copts hold the belief in Christ possessing one nature only they are called **Monophysites**, and they are also known as **Jacobites** because they follow views of Jacob Baradæus, a Syrian, who was an active propagator of the doctrine of Eutyches. The Copts who adhered to the Greek faith were called **Melkites**, or **Melchites**, *i.e.*, **Royalists**, because they agreed in faith with the Emperor of Constantinople. The dissensions between the Melchites and the Jacobites were of a very serious character, and they were carried on with great bitterness on each side until the Arabs invaded Egypt; the Jacobites then threw in their lot with the Arabs, and rejoiced

to lend them their help in expelling the Greeks. As soon as 'Amr became master of Egypt he appointed a number of Copts to positions of dignity and importance and wealth, but finding them to be unworthy of his confidence, he degraded them, and very soon afterwards they were persecuted with terrible rigour.

The Copts declare that St. Mark, who is said to have been the first to preach the Gospel in Alexandria, was their first **Patriarch**, and their list of the Patriarchs of Alexandria begins with his name. The Coptic Patriarch is also the **head of the Abyssinian Church**, for the dwellers in Ethiopia profess the Monophysite doctrine. The Patriarch governs the Coptic Church by means of a Metropolitan of Ethiopia, commonly called "Abûna," *i.e.*, "our Father," 12 bishops, two kinds of priests, and deacons. He lives in Cairo, and is chosen from among the order of monks of the Convent of St. Anthony, who have always been very numerous among the Copts. The Coptic community is a very wealthy one, and the property, of which the Patriarch has almost unlimited control, is enormous; it is asserted on good authority that a great deal of peculation goes on among those who assist the Patriarch to administer ecclesiastical property, and it is to be hoped that the Reform Party in the Coptic Church will succeed in forcing them to render accounts of the moneys which come into their hands, and to submit to some kind of audit. Until comparatively recently the Coptic Patriarch had the power to excuse Copts from military service on the payment of certain fees to him, and it was only renounced under considerable pressure. Coptic monks and nuns form a very numerous body, and there is no doubt that the best of them lead lives of great austerity. They emulate the lives of St. Anthony and his immediate followers, and fast and pray with extraordinary zeal and persistence; they wear woollen shirts, and live chiefly upon vegetable food. They do not cultivate their minds or advance learning, and but few of them can read Coptic, their ancient language; speaking generally, they know nothing of their own history and literature, and their ignorance, superstition, and narrow-mindedness are almost incredible. In certain villages in Upper Egypt where Coptic monasteries exist the monks do not enjoy a reputation for sanctity.

The Copts **baptize** their sons when 40, and their daughters when 80 days old; the Holy Spirit is believed to descend upon the child in baptism, and it is thought that an unbaptized child

will be blind in the next life. Like the ancient Egyptians they practise **circumcision**, and the custom is probably to be regarded more in the light of a survival of a wide-spread habit of the ancient indigenous people of Egypt than as a religious rite. Boys are taught the Psalms in Arabic, and the Gospels and Epistles both in Arabic and Coptic; but Coptic does not appear to be taught grammatically in Coptic schools. Prayers are said and portions of the Bible are read in Coptic in the churches, but it is doubtful how much the readers know of the language. In manuscripts an Arabic version of the Coptic text is usually written side by side with it, and recourse is always had to this in cases of difficulty. The Copts who are engaged in commerce have a lively appreciation of the education in modern subjects which will fit their sons for business, and it is a remarkable fact that the percentage of Muḥammadan pupils in schools and colleges under the Department of Public Instruction is less than the percentage of Muḥammadans in the total population, whilst the percentage of Coptic pupils in the same schools is almost treble the percentage of Copts throughout Egypt. Thus Muḥammadans form 95 per cent. of the total population, and the number of their children in the schools forms 82 per cent. of the pupils. When (in 1908) the Copts formed 6 per cent. of the total population the number of their children in the schools formed 17 per cent. of the pupils. The Copts owe their ability to perform the duties of clerks in Government offices in Egypt entirely to the American missionaries, who have taught them English, and educated them on modern lines, and helped them to lead lives based upon a high standard of public and private morality. The Copts, like the Jews and Muḥammadans, **pray seven times daily**, namely, at daybreak, at the third, sixth, ninth, eleventh, and twelfth hours, and at midnight. The strictest of them recite in Arabic the seventh part of the Psalter, and a chapter of one of the four Gospels each time they pray, and then either with or without the help of a rosary, they say: "O my Lord, have mercy!" 41 times. They then say a short prayer in Coptic. The poor and the illiterate say the Lord's Prayer seven times at each season of prayer, and, "O my Lord, have mercy!" 41 times. The Copts usually **wash** before praying, and they **face the east** when praying.

Coptic churches usually contain four or five divisions. The **first contains the altar**, and is separated from the second by a screen with a door in the centre which is covered by a curtain

with a cross worked upon it. The **second** division is devoted to the priests, choir, ministrants, and the more influential or important members of the congregation; it is separated from the third by a high wooden lattice with three doors in it. The **third**, or third and fourth divisions, are set apart for the less important male members of the congregation, and in the **last** division come the women. The walls are ornamented sometimes with pictures of saints, but no images are admitted. Every member of the congregation removes his shoes on entering the church, and as the services are frequently very long, and he has to stand most of the time, he supports himself upon a kind of crutch. The service usually begins at daybreak, and lasts from three to five hours. In spite of the mats which are laid upon the floors the churches are very cold in winter. The strict decorum which a European associates with behaviour in church is not carefully observed, and many members of the congregation may frequently be seen conversing with each other on business matters, and the long service appears to be monotonous and uninteresting. At intervals a priest censes the congregation, and blesses various members of it. In the Eucharist only the priests partake of the **wine**; the **sacramental bread** is made in the form of small round cakes or buns, which are stamped with the cross, etc.; after being moistened with wine they are administered to the congregation. The Copts make use of **confession**, which is obligatory before the receiving of the Eucharist, and they observe the following **fasts**:—(1) The **Fast of Nineveh**, which is kept one week before Lent, and lasts three days and three nights; (2) the **Great Fast**, *i.e.*, Lent, which originally lasted 40 days, but has now become extended to 55; (3) the **Fast of the Nativity**, the period of which is the 28 days immediately preceding Christmas Day; (4) the **Fast of the Apostles**, which is the period between the Ascension and the fifth day of Epîp; (5) the **Fast of the Virgin**, a period of 15 days previous to the Assumption of the Virgin. The Copts **fast every Wednesday and Friday**, except for one period of 50 days. Each fast is followed by a festival. The **Festivals** are:—(1) The **Festival of the Nativity** (6th or 7th of January); (2) the **Festival Al-Ghîtas** (18th or 19th of January), in commemoration of the baptism of Christ; (3) the **Festival of the Annunciation** of the Virgin (6th of April); (4) the **Festival of Palm Sunday**; (5) the **Great Festival of Easter**; (6) the **Festival of the Ascension**; (7) the **Festival of Whit Sunday**. For.

merly on the Festival Al-Ghîṭas, whereon the baptism of Christ was commemorated, men and boys used to plunge into the water, the one saying to the other: "Plunge, as thy father and grandfather plunged, and remove Al-Islâm from thy heart." Mr. Lane says: "Some churches have a large tank, which is used on this occasion, the water having first been blessed by a priest; but it is a more common practice of the Copts to perform this ceremony (which most of them regard more as an amusement than a religious rite) in the river, pouring in some holy water from the church before they plunge. This used to be an occasion of great festivity among the Copts of the metropolis; the Nile was crowded with boats. Prayers are performed in the churches on the eve of this festival; a priest blesses the water in the font on the bank, then ties on a napkin as an apron, and wetting the corner of a handkerchief with the holy water, washes (or rather wipes or touches) with it the feet of each member of the congregation."

As the Muḥammadans declare that every true believer must visit the grave of the Prophet at Makkah (Mecca) once in his life, so the Copts hold it obligatory on every one of their community to **visit Jerusalem** once in his life. The Copts are forbidden to marry anyone who is not a member of their community, and if one does so he is married according to the civil law of the land, and as his own Church will not recognize the marriage it may be dissolved at pleasure. To **marry a wife** the Copt follows the same method of procedure as the Muḥammadan, that is to say, some woman of his family looks out for a suitable partner; when found, her face is rarely seen by her future husband. A contract in respect of **dowry** is drawn up on strict business principles, a priest usually presiding and agreeing, or not, to the terms proposed; when all parties have agreed to the contract they say the Lord's Prayer three times. The Copts usually marry on Saturday nights, and the complete marriage festival lasts eight days. The festival begins on Tuesday, when the friends of the pair to be married are feasted. Mr. Lane describes an interesting custom which is observed during the early days of the festival, and says that the cook makes two hollow balls of sugar, each with a hole at the bottom. Then taking two live pigeons he attaches little round bells to their wings, and having whirled the poor birds through the air till they are giddy, puts them into the two balls before mentioned; each of these is placed upon a dish, and

they are put before the guests, some of whom, judging when the birds have recovered from their giddiness, break the balls. The pigeons generally fly about the room, ringing their little bells; if they do not fly immediately, some person usually makes them rise, as the spectators would draw an evil omen from their not flying. On Thursday the bride is conducted to the bath, and on Friday the nails of her hands and feet are stained with ḥenna. On Saturday two suits of clothing, one for the bride and one for the bridegroom, are sent from the bride's house to that of the bridegroom, and a woman from her house goes to the bridegroom's to see that all is prepared, and the bridegroom is taken to the bath. In the evening the bride sets out for the bridegroom's house, being escorted by her women relations and friends, and as she is about to enter it, a sheep is killed at the door, and the bride must step over the blood. A few hours later, after much feasting, the bride and bridegroom go separately to church, and the Eucharist is administered to the couple, and a long service is performed. The ceremonies and service often last until daybreak, when the newly-married couple go to the husband's house. On the Monday the bride's father gives a feast in the bridegroom's house, and on the Tuesday the bride and bridegroom do the same, and with this the marriage festival closes. The Copt can obtain a divorce only on the ground of adultery on the part of his wife, but a separation can be effected for many reasons.

The Copts follow the custom of the country in carrying their dead to the grave, and lamentation goes on in the house of the deceased for three days; they visit the tombs thrice a year, and spend a night there each time. At each visit, those who are in easy circumstances give a meal to the poor. It is difficult to find out what the Copts believe about the **judgment of souls**, but some of them think that the soul is judged on the day when it leaves the body, and that it receives its reward of good or evil before sunrise on the following day. It is interesting in connection with this opinion to note that a large number of the ancient Egyptians held a somewhat similar view. They thought that the souls of all those who died during the day made their way to the realm of Osiris, which they reached a little before midnight; the god then rewarded the blessed with grants of fertile land, which they cultivated for all future time or eternity, and here they lived lives of content and bliss. The souls of those who had led evil lives on earth were handed over to the

ministers of the wrath of Osiris, and they were hacked to pieces with murderous knives, and then thrown into pits of fire where their mutilated members were consumed, together with the powers of darkness which had fought against Osiris and the Sun-god Rā. From this point of view a judgment took place daily, and each sunrise saw the judgment-halls of Osiris and Rā empty.

The character of the Copts is hard to judge. They are extremely bigoted, and are said to hate other Christians more bitterly than they hate Muḥammadans, but this is hardly to be wondered at considering what they have suffered from the hands of their co-religionists in past centuries. They are said, even by their own people, to be sullen in temper, greedy, and avaricious, and to pursue modern education merely for the love of personal gain. Against this view must be set the fact that until the rule of the British in Egypt they never enjoyed real freedom, and it is probable that just treatment and government may develop the best traits which they possess, and cause to disappear the results of centuries of persecution and oppression. Many competent authorities consider the Copts to be the ablest and most intellectual of all the natives of Egypt.

The visitor who is interested in the history and literature of the Copts should not fail to visit the **Church of the Virgin** at Fusṭâṭ and the adjoining **Museum of Coptic Antiquities.** Here, owing to the care of the eminent Copt, **Simaika Pâshâ**, are gathered together in cases series of Coptic ecclesiastical vestments, Coptic manuscripts written on papyrus, vellum and paper, sacramental vessels, ecclesiastical furniture, objects in metal, glass, wood, etc. The cases are well arranged and all objects are easily seen. The woodwork, screens, etc., and the panels and carved wood lintels are specially interesting. Many are unique.

4. The **Badâwîn** are represented by the various Arabic-speaking and Muḥammadan tribes, who live in the deserts which lie on each side of the Nile; they amount in number to about 50,000. The Bishârîn,* Hadanduwa, and 'Abâbdah tribes, who speak a language called "tû badhawîya," and who

* The Bishârîn (sing. Bishârî بشارى) are the representatives of the Baga or Baja of Arabic writers, of the ΒΟΥΓΑΕΙΤΩΝ of the Axum Inscriptions, and probably of the Bukka, a nation conquered by Thothmes III.

live in the most southern part of Upper Egypt, Nubia, and Abyssinia, are included among this number.* Among these three tribes the institutions of Muḥammad are not observed with any great strictness. When the Badâwîn settle down to village or town life they appear to lose all the bravery and fine qualities of independent manhood which characterize them when they live in their home, the desert. The classical name for the desert tribes is "**'Irâbîyûn,**" or "**'Urbân,**" but a dweller in the flat, open desert is called "**Badawî,**" or "**Badâwî,**" the plural being "**Badawîyûn.**" This name was introduced into European literature by the early French Arabists, who always spoke of "les Bedouins."

The inhabitants of Cairo, Alexandria, and other large towns form a class of people quite distinct from the other inhabitants of Egypt; in Alexandria there is a very large Greek element, and in Cairo the number of Turks is very great. In the bâzârs of Cairo one may see the offspring of marriages between members of nearly every European nation and Egyptian or Nubian women, the colour of their skins varying from a dark brick-red to nearly white. The shopkeepers are fully alive to their opportunities of making money, and would, beyond doubt, become rich but for their natural indolence and belief in fate. Whatever they appear, or however much they may mask their belief in the Muḥammadan religion, it must never be forgotten that they have the greatest dislike to every religion but their own. The love of gain alone causes them to submit to the remarks made upon them by Europeans, and to suffer their entrance and sojourning among them.

5. The **Nubians**, or **Berbers** (**Barâbarâ**), as they are sometimes called, inhabit the tract of land which extends from Aswân, or Syene, to the Fourth Cataract. The word Nubia appears to be derived from *nub*, "gold," because Nubia was a gold-producing country. The word Berber is considered to mean "barbarian" by some, and to be also of Egyptian origin. They speak a language which is allied to some of the North African tongues, but often speak Arabic well. The Nubians found in Egypt are generally doorkeepers and domestic servants, who can usually be depended upon for their honesty and obedience.

6. The **Negroes** form a large part of the non-native population of Egypt, and are employed by natives to perform hard work, or are held by them as slaves. They are Muḥammadans

* *See* Almkvist, *Die Bischari-Sprache Tū-Beḍāwie in Nordost Afrika*, Upsala, 1881. Vol. II, Upsala, 1885.

by religion, and come from the countries of the Southern Sûdân. Negro women make good and faithful servants.

7. The Syrian Christians who have settled down in Egypt are generally known by the name of **Levantines.** They are shrewd business men, and the facility and rapidity with which they learn European languages place them in positions of trust and emolument.

8. The **Turks** form a comparatively small portion of the population of Egypt, but many civil and military appointments are, or were, in their hands. Many of them are the children of Circassian slaves. The merchants are famous for their civility to foreigners and their keen eye to business. The number of Turks in Egypt in 1917 was 30,796.

9, 10. The **Armenians** and **Jews** form a small but important part of the inhabitants in the large towns of Egypt. The former are famous for their linguistic attainments and wealth; the latter have blue eyes, fair hair and skin, and busy themselves in mercantile pursuits and the business of bankers and money-changing. The number of Jews in Egypt in 1917 was 59,581.

The **European population in Egypt** consists of Greeks, 56,735; Italians, 40,198; English, 24,356; French, 21,270; Austrians, 2,789; Russians, 4,225; Germans, 157; Spaniards, 797; Persians, 1,496; Miscellaneous, 23,976. The greater part of the business of Alexandria is in the hands of the **Greek merchants,** many of whom are famous for their wealth. It is said that the Greek community contributes most largely to the crime in the country, but if the size of that community be taken into account, it will be found that this statement is not strictly true. The enterprise and good business habits of the Greeks in Alexandria have made it the great city that it is. The French, Austrian, German, and English nations are likewise represented there and in Cairo by several first-rate business houses. The destructive fanaticism peculiar to the Muḥammadan mind, so common in the far east parts of Mesopotamia, seems to be non-existent in Egypt; such fanaticism as exists is, no doubt, kept in check by the presence of Europeans, and all the different peoples live side by side in tolerable quietness. It should always be remembered that waves of fanaticism pass over all Muḥammadan peoples at intervals, and it must be confessed that the Pan-Egyptian propagandists in Egypt are producing a feeling of unrest in the country, and that suspicion of the English and disaffection are general. A certain

section of the community is always crying "Egypt for the Egyptians," and many of its members cannot see that they are being cleverly worked by emissaries from abroad whose real aim is "Egypt for the Turks." These emissaries do their best to blind the minds of the unthinking lower classes to the fact that they owe their **freedom from the whip, the corvée and slavery to the British rulers in Egypt.** And they also try to make the people believe that the money invested by European firms and companies in Egypt is the result of the labours of the Egyptians, which has been taken from them by unjust means. Happily the Anglo-French Agreement permits England to continue her great civilizing work in Egypt without check from the most enlightened nation on the Continent, the French, and there is now no fear that Egypt will sink back into the misery and corrupt state to which it had been brought by Turkish misrule. The great benefit derived by Egypt from the immigration of Europeans during the last few years is evident from the increased material prosperity of the country, and the administration of equitable laws which has obtained. The European element in Egypt now contributes to the revenue in taxation a considerable sum annually.

VII.—THE MODERN EGYPTIANS.—NARCOTICS AND AMUSEMENTS.

One of the greatest enjoyments of many classes of the modern Egyptian is **to do nothing,** especially if he has sufficient means to provide himself with coffee, and with some narcotic in the form of tobacco, opium, ḥashîsh, *i.e.*, Cannabis Indica, or Indian hemp, etc. The drinking of **wine and strong drink** of every kind is prohibited to the true believer with no uncertain voice in the Ḳur'ân, and the passages in which the prohibition is laid down have formed the subject of much comment by Muḥammadans in all countries. A passage in Surah II says: "They will ask thee concerning wine and lots; answer in both there is great sin, and things of use unto men; but their sinfulness is greater than their use." Some are of opinion that excess in wine-drinking only is here forbidden, but the stricter Muḥammadans hold that men should not taste, touch, or handle wine, spirits, or strong drink of any kind. In spite of this, however, it is quite certain that

Muḥammad the Prophet did drink a kind of wine called **nabîdh**, and many of his followers considered that its use was lawful. **Nabîdh** is made by soaking dried grapes or dates in water for a few days, until the liquor ferments slightly, or acquires sharpness or pungency. The Prophet drank the liquor in which grapes or dates had been soaked for one or two days, but on the third day he either gave it to his servants or had it poured on the ground. At the present time Muḥammadans drink in private many kinds of European wines and spirits and beer, and excuse themselves for so doing by calling them "medicine." Arab literature proves that the Muḥammadans were great drinkers of *nabîdh*, and contains records of many disgraceful acts committed by the illustrious when drunk, and shows that the punishments prescribed by the law for the drinking of wine and spirits did not act as deterrents. A freeman might be beaten with 80 stripes, and a slave with 40, and if the crime were committed in the day-time during the month of Ramaḍân, *i.e.*, during the great fast, the punishment for the offender was death. At the end of 1904 there were in all Egypt at least 4,015 drinking shops. In 1905 about 466 applications for licences to sell alcoholic drinks were made, and 370 were refused. There is little or no drinking in the villages in Egypt, but in the towns there is a certain amount of intoxication. The amount of alcohol made in Egypt is increasing yearly.

The place of wine was taken by **coffee**, which is called to this day by a very ancient name for old wine, *i.e.*, "'Ḳahwah." The properties of the coffee berry were discovered accidentally by one 'Omar, who had fled into Yaman from persecution with a few followers in the thirteenth century. Being reduced by want of provisions to cook the berries of the coffee plant which grew there in abundance, he experienced the effects familiar to all who indulge in strong "black" coffee. About two centuries later coffee was drunk publicly in Aden and its neighbourhood, and it was introduced into Egypt at the end of the fifteenth or beginning of the sixteenth century by some natives of Southern Arabia. The use of coffee has been the subject of fierce debates, and the number of the decisions by Muḥammadan divines condemning its use are as numerous as those which permit it. Its sale has been alternately prohibited and legalized, and at the present time it is drunk by every class of Muḥammadan presumably without scruple. The modern coffee-house is a most popular institution among the lower classes, and is

mostly frequented in the afternoon and evening; the benches outside the shop, which are provided by the proprietor, are well filled, and men sit on them, and play games of chance and smoke their cigarettes or pipes. In the evening professional story-tellers appear, and being provided with a seat and a cup of coffee proceed to entertain the company with narratives of a vivid character. At intervals a collection is made in the story-teller's favour, the amounts given varying, of course, in proportion to the pleasure which the listeners have derived from the entertainer. In times past coffee-houses have been hotbeds of sedition and conspiracy, and even now a better idea of the opinion of the Egyptian "man in the street" on any given social question can be obtained from the coffee-shop than elsewhere.

Tobacco was introduced into Egypt about a century later than coffee, and its use has been discussed with as much keenness as that of coffee. Few Muḥammadans scruple about smoking in these days, even though the following saying is traditionally ascribed to their Prophet:—"In the latter days there shall be men who bear the name of Muslims, but they shall not be really such, for they shall smoke a certain weed which shall be called Tobacco"! Coffee and tobacco are considered so important that the following sayings have become proverbial:—(1) "A cup of coffee and a pipe of tobacco form a complete entertainment"; and (2) "Coffee without tobacco is meat without salt."

For several centuries past the Egyptians have been addicted to the use of **ḥashîsh,** or Indian hemp, which when smoked produces a species of intoxication, which is more or less intense according to the length of time it is smoked. The properties of the plant were well known in ancient times, for the Indians have from time immemorial chewed the leaves and seeds, and employed them in many ways, both for good and evil. The seeds pounded with sweet and aromatic substances in the form of jam have often been administered as an aphrodisiac. From India the herb passed into Persia, and subsequently into Constantinople and Egypt, where it is beloved by the lower classes. Its importation is prohibited, but although the coastguard service watches the ports and the neighbouring shores with sleepless vigilance, a very large quantity is smuggled into the country. In 1902 about 16,768 kilos. were seized and confiscated, and in 1903 about 24,349 kilos.; in 1902 its price was 60 francs per kilo., and in 1903 it was even higher. In 1904 about 21,369

kilos. were confiscated; 15,380 kilos., 16,290 kilos., and 23,000 kilos. were confiscated in 1907, 1908, 1909 respectively. The price per kilo. varied between £E.2½ and £E.4. In each pipe a piece of ḥashîsh, weighing about 2 grains, value 1¼*d*., is placed with some hot charcoal; the pipe is then handed to a company of eight persons, each of whom pays about three farthings for a long pull. The regular use of this drug is said to induce insanity, and of the 366 patients who were admitted to the lunatic asylum in 1903, some 67 were declared to be suffering from insanity due to ḥashîsh. The Government does all in its power to prevent the spread of ḥashîsh smoking, and in 1903 the tribunals ordered 22 cafés owned by Europeans, and 1,681 belonging to natives, where ḥashîsh was sold, to be finally closed. About 2,367, 1,820, 1,908 dens for smoking ḥashîsh were closed by the Government in 1906, 1907, and 1908 respectively. In 1909 some 3,258 persons and in 1910 some 2,764 persons were prosecuted for using ḥashîsh, and convicted. Statistics for recent years are not available, for during the War the police were occupied with weightier matters than the smoking of ḥashîsh. But there is reason to believe that the great cost of the drug, and the difficulty of obtaining it, have caused the excessive use of it to diminish. The ḥashîsh is brought from Greece to Tripoli, thence it is carried by camels to the Oasis of Sîwah, then to the Oases of Baḥarîyah and Dâkhlah, and so into Egypt. The regular smoker of ḥashîsh is called "ḥashshâsh," and the word indicates that the man to whom it is applied is a debauchee. Many Egyptians smoke **opium**, but as its effects are not so noisy or dangerous to his neighbours, the opium smoker is not regarded with such contempt as the smoker of ḥashîsh.

Gambling has in all ages been one of the delights of the Egyptians. In recent years the Government have made serious attempts to put down gambling in Cairo and Alexandria, but to put a stop entirely to the vice is beyond the power of any Government. In 1907 the Police conducted 43 successful prosecutions of Europeans and natives for gambling; in 1908 about 80 professional gamblers were convicted, and in 1909 about 30. These figures do not mean that gambling has ceased or is ceasing in Egypt, they only suggest that the gamblers are more careful about the time and place of their favourite amusement.

Next to smoking the Egyptian's chief enjoyment is the

Bath, which is of the kind commonly called "Turkish"; the word for bath is "ḥammâm." Some baths admit male Arab customers only, others women and children only, and others both men and women, the former in the morning and the latter in the afternoon. When the bath is appropriated to women a piece of linen or drapery is hung over the entrance to warn men not to enter. The old baths of the city are built of brick, have domes in the roof, and are paved with earthenware and marble tiles. The Muḥammadan believes that baths and lavatories are haunted by spirits of a more or less evil and malicious nature, and when he enters them often does so with his left foot foremost, and he should say a prayer for protection against the spirits. The modern bath is much more luxuriously fitted than the old native bath, but the appointments and fittings of a bath in Egypt as elsewhere depend upon the class of customers who visit it. The older baths are not so clean as the new ones, the supply of towels is not so abundant, and the service is inferior. On the other hand, very expert bathmen are found in the older institutions, and these thoroughly understand how to knead the limbs, rub the feet, and crack the joints, in such a way as to do the bather the most good.

The real view taken by the Egyptians about **music, singing,** and **dancing** is not easy to find out, but no people are more pleased than they with these amusements. Music was forbidden by Muḥammad himself, for he thought that it excited men's passions and predisposed them to vice, and even in the *Arabian Nights* (No. 899) we read of the damsel who dressed herself in black, built a tomb, and repented that she had sung to the lute. As a matter of fact the Egyptians sing whenever they have a chance, and the boatmen and artisans, even when engaged in the most laborious duties, can find breath enough to sing a kind of rhythmic chant, for song, in our sense of the word, it can hardly be called. Among the learned the art of chanting passages from the Ḳur'ân is carefully taught, and the member who has the best voice of the clergy of a mosque is usually chosen to sing the call to prayer from the minaret. Formerly **blind** men were chosen because they could not look down into the courts or rooms of their neighbours' houses.

The **system of music** which was in use among the ancient Arabs is not understood by the modern Egyptians, who appear to have borrowed such music as they possess from other more Eastern nations. Mr. Lane has pointed out that in the Arab

system the tone is divided into thirds, which, naturally, cannot be produced by native instruments. The construction of the tune is simple, and it contains many repetitions, but in the mouth of an expert singer it usually produces a restful effect. The old Arab songs usually chant the praises of the camel, the glory of war and fighting, the beauty of some maiden, or the exploits of some hero; modern songs are usually about love, which is treated of in the characteristic Oriental manner. Many of the popular songs sung in Egypt at the present time consist merely of a number of obvious descriptions of facts, which are strung to a sort of monotonous chant; others are of a ribald or obscene character, and such are often heard in the mouths of children. In every town and village of considerable size there exist professional musicians and singers whose services are hired for public and private entertainments. The male singer is called "Alâti," and the female "Almah" (plural, 'Awâlim); the better classes of each sort can usually play some instrument. When employed in the house of a man of wealth a sort of "musicians' gallery" is set apart for them near the largest room of the house, where the master and his family can hear them in comfort. Strolling singers are often met with on the great caravan roads, and the songs which they sing by the camp fire are weird and plaintive; taken in conjunction with the surroundings, the clear starry sky, the shadowy forms of the camels and donkeys, and the picturesque forms of the members of the caravan, with their interested, fire-lit faces, they produce a curious effect upon the listener. The principal instruments are the **kamangah**, *i.e.*, a two-stringed lute, the **rabâbah**, or one-stringed lute, the **ḳânûn**, or dulcimer, the **'ûd**, another kind of lute, which is played with a plectrum, the **nâi**, or flute, the **riḳḳ**, or tambourine, the **naḳḳârah**, or kettledrum, the **bâz**, another kind of drum, the **kâs**, or cymbals, the **sâgât**, or castanets, the **ṭâr**, a kind of tambourine, the **durabûkah**, which is made of wood, and is covered sometimes with mother-of-pearl or tortoise-shell (this instrument is often made of earthenware), the **zummârah**, or double-reed pipe, and the **arghûl**, or double-reed pipe, one pipe of which is shorter than the other.

The **dancing girls** are called **Ghawâzi**, and they used to perform unveiled in the streets; their public exhibitions are now prohibited, but when they are hired to give an entertainment in the courtyard of some large house in the provinces, large numbers of people of all classes attend, and the performance

is to all intents and purposes a public one. The dancing girls of Ḳanâ in Upper Egypt were notorious for their freedom and license.

The **snake charmers**, who belong to the Rifâʻi dervishes, perform some marvellous feats with serpents, and they certainly seem to possess wonderful powers in dealing with snakes and serpents of every kind known in Egypt. They handle them with the greatest freedom, and the reptiles appear to do whatever they wish, and never attack them. These men, by means not apparent to the uninitiated, can detect the presence of a hidden snake wheresoever concealed, and they are frequently employed by the natives who suspect that serpents have made their homes in the walls and ceilings of their houses. It has been said by those who understand the art of snake charming as practised by experts in India that snake charmers inoculate themselves with solutions of snake poison, the strength of which they gradually increase until they are able to endure the bites of snakes of the most venomous character without losing their lives. They are also said to anoint themselves with snake fat, whereby they acquire an odour which is pleasing to the living reptiles, and to be able to know when a serpent is near them by their sense of smell. Be this as it may, they certainly discover the hiding places of snakes with great correctness, and many of them must possess some physical means whereby the presence of snakes is made known to them.

Jugglers also thrive in Egypt, and they are warmly welcomed wherever they appear; many of their tricks are quite ordinary, but every now and then a juggler is met with whose skill is quite equal to that of the best Indian performers. In former days numerous **tumblers** and **rope-dancers** attracted large audiences in the streets, and the **Ape-men** and the **Buffoons** earned a good livelihood. The performances of the last two classes were of a most varied character, and they usually ended in representations of scenes of gross obscenity. In recent years they have been rarely seen in the better parts of Cairo, but in the purely native quarters and the outskirts of the city they are still exceedingly popular. The fact is that the lower orders of Egypt love lewd stories, lewd jests, and lewd buffoonery of all kinds, and sooner or later all dancers, jugglers, and others who offer entertainment for an Egyptian crowd, introduce the element of indecency or obscenity, for the simple reason that it pays them better to do that than to

persevere in the exhibition of tricks of skill in sleight of hand or strength.

The Egyptians delight greatly in the class of men called Shuʻara, literally, "**poets,**" who provide entertainment for the public by reciting compositions, which are part prose and part poetry, outside the cafés. A "poet," or rather **story-teller,** is usually hired by the owner or keeper of the café, and having taken up his position on some raised place outside the shop he proceeds to relate some story, such as that of Abû Zeyd, to the customers who, as they sip their coffee or smoke, listen with great attention to the adventures of this hero. At intervals he, or a companion, plays some notes on a kind of lute which he has with him. He knows the composition which he relates by heart, and if he has a pleasing manner and a good voice he makes an hour or two pass agreeably for his audience, and with profit for himself, for many of the customers give him small sums of money, especially if, knowing his audience, he is able to make "topical allusions" successfully. In Egypt the fortune-telling **Gipsies** abound, and marvellous stories are told of their prophetic powers, and of the success with which they forecast events. Few of them, however, possess the skill in their work which characterizes the fortune-tellers in India, and the European who consults them is usually disappointed with their efforts. On the other hand, it must be admitted that they possess considerable ability in reading character from faces, and among the older gipsies there are many whom long experience has made shrewd and correct exponents of men's dispositions by observing their gait, actions, and manner of speech.

The following gipsy story related by Sir Eldon Gorst in his report (Egypt, No. 1, 1909, p. 27) is well worth quoting, for it illustrates the curious views of some of the people with whom the British Administrator came in contact, and shows that his task of governing them and of keeping the peace was not so easy as some imagined. The story would be incredible were it not supported by trustworthy evidence. In December, 1908, a party of some twenty rough-looking persons of both sexes, resembling neither fallâḥîn nor Badâwîn, arrived at Asyûṭ about the same time as a policeman in charge of six camels. As the result of inquiries made by an English official who happened to be on the spot, it appeared that these people were gipsies, known in Arabic as Halabyîn, *i.e.*, originally from Aleppo, who travelled from village to village, the women telling fortunes, and the men carrying on a considerable and apparently lucrative trade in camels, horses, and other live-stock. Six months previously, one member of the tribe had struck the camel of another with a whip, an insult which could only be wiped

out, according to their custom, by the voluntary loss of valuable property by each party, one bidding against the other, as at an auction, until the aggrieved or offending party could not afford to continue. When this occurs, the last bidder is considered to have won the case, by having proved that he is the richer and, therefore, the better man. Before the appearance of the camels at Asyûṭ, about £400 worth of property had already been sacrificed in the following manner :—The aggrieved party began by slaughtering a buffalo, the carcase being appropriated by the neighbouring peasants. The offender replied by killing two buffaloes, as a proof of the justice of his cause. The first man then threw £5 into the Nile, to which his opponent answered with £10, and so on, slaughtering animals or throwing away gold, until property to the value of £400 had been destroyed. On the arrival of the gipsies and their camels at Asyûṭ, the dispute broke out afresh, and the local authorities were unable to effect a settlement until the parties concerned had parted with their camels, which were worth about £150, and bid up to £416. In order to avert the slaughter of the camels and the throwing of more money into the Nile, as the litigants at first wished, it was suggested that the animals should be sold and the proceeds of the sale, as well as the money staked, given to a Moslem charitable society. This solution was accepted, and when the result was made known there were great rejoicings among the Halabyîn. The party then disappeared, apparently quite content that bloodshed had been avoided, and an insult avenged at the cost of nearly £1,000.

On the whole, the result of the great invasion of Europeans and of Western civilization and methods, which has taken place in Egypt during the last 30 years, has been to thrust native amusements from the main streets of Cairo in the winter, and there is little chance now of the traveller enjoying the sights and scenes of Cairene life in the easy way that was possible some 50 years ago. The Egyptians themselves in large towns seem to be indisposed to amuse themselves in the old way, and their most characteristic customs are now best observed in provincial towns and villages. This result is not to be wondered at when we consider the number of the forces of Western civilization which the Occupation of Egypt by the British has caused to be brought to bear on her people. The children of well-to-do families in the large towns now attend schools, and the great object of parents is to get their sons into Government employment. At the Government Schools, and in the Schools of the various Missions which are scattered throughout the country, the boys are taught to be clean in person, and the wearing of European clothes follows as a natural result. The life and amusements which satisfied their fathers do not please them, and youths and young men endeavour to assimilate Western ideas and Western culture as much as possible, even when they do not understand them. The **status and**

condition of women have greatly improved in recent years, and at the present time a great change is passing over the habits of a large portion of the population which must have far-reaching results. Formerly a mother and her children squatted on the ground and ate from a single bowl, or dish, with their hands, and the cost of a meal for the whole family was relatively a trifling matter. Mother, father, and children wore native dress, the cost of which was usually well within the reach of most families. When the boys went to the Government Schools they were obliged to adopt European dress, and as a matter of course the native garments were discarded. In a very few years youths and young men were seen wearing European suits, boots with spring sides, collars, cuffs, neckties, &c., and they began to frequent the restaurants, and to eat European dishes and to drink Western drinks. This change in their mode of life entailed a considerable increase in the cost of living, and the difficulty of finding the money necessary to support it began to cause serious embarrassment to their parents, and made them dislike Western manners and customs. This serious change is, the writer thinks, one of the chief causes of the unrest which undoubtedly exists in all the large towns of Egypt.

Another cause clearly is the unsuitability of the education which is provided in the Government Schools for all classes of the community. When the Government Schools were first started, boys flocked to them, thinking that when they had passed all the examinations they were certain to find employment in the Public Service. When it was discovered that only a few of those who had passed all the examinations could obtain situations in the Government Offices the indignation of both boys and parents was very great. Yet another cause of discontent was the discovery by those who received appointments that their salary was insufficient to enable them to live as Europeans live in Egypt.

VIII.—THE MODERN GOVERNMENT OF EGYPT.

When His Highness **Aḥmad Fuad I,** Sulṭân of Egypt (born 26th March, 1868), began to reign on 9th October, 1917, Egypt was no longer a Pashalik of the Turkish Empire, but a British Protectorate (declared 18th November, 1914).

The intention by Great Britain, as expressed by the High Commissioner, Field-Marshal Lord Allenby, is to preserve the autonomy of Egypt under British protection, and to encourage Egyptian self-government. The Sultân is assisted in government by a **Council**, with a President, who performs the duties of Prime Minister. There are **eight Ministries**, viz., the Interior, Finance, Public Works, Communications, Religious Endowments (*Wakûf*), Education, Justice, and Agriculture. The **Legislative Assembly** consists of eighty-three members in addition to the ministers. **Justice** is administered by the religious officials called Ḳâḍî, Native Tribunals, Mixed Tribunals, and Consular Courts. Cairo and Alexandria are **Governorships**, the former containing twelve **Quarters** or Divisions, and the latter eight. Each of the Fourteen Provinces is governed by a **Mûdir.** The Provinces are divided into districts called *markaz*, and each of these is under a **Ma'mûr**, who receives reports from and directs the subordinate officials, the *'umdah*, a sort of deputy *ma'mûr*, and the *shêkh al-balad*, or shêkh of the village. The peace is kept by the Egyptian **Police** (about 10,500 in number) and about 54,000 *Ghafîrs*, or **Watchmen**, who are armed with stout cudgels, and serve by night. **Military service** is compulsory on all Egyptian subjects, but exemption can usually be obtained on payment of £E.20. Egypt possesses no **Navy** in the modern sense of the word.

The **Revenue** was in 1912 £E.17,515,000, in 1916–17 £E.17,240,606, in 1919–20 £E.28,850,000, and in 1920–21 about £E.40,271,000. **Trade:** the **Imports** for 1914 were valued at £E.21,724,606, and for 1919–20 £E.47,409,717; the **Exports** for the same years were valued at £E.24,091,796 and £E.75,888,321 respectively. The British Empire's share in Egypt's **exports** in 1919 totalled £E.41,214,276, or nearly 55 per cent.; its share in Egypt's **imports** totalled £E.21,840,957, or about 46 per cent. The **Debt of Egypt:** the Guaranteed Debt 3 per cent. in 1920 was (in sterling) £6,098,400; the Privileged Debt 3½ per cent. £31,127,780; the Unified Debt 4 per cent. £55,971,960; **total** £92,198,140. The revenue and expenditure for **1920–21** were estimated at £40,271,000. The **Date-tree tax** was abolished on 1st April, entailing a loss to the revenue of £E.136,500.

The **Egyptian Flag** is red. On it are three crescents, with their horns turned away from the flagstaff; between the horns of each crescent is a five-pointed star ☪

Cotton.—The export trade of Egypt is almost entirely dependent on the cotton crop. In 1913 cotton, cotton-seed, and cotton-seed cake accounted for £E.29,103,718 out of a total of £E.31,267,087, or 93 per cent.; and in 1918 for £E.40,691,529 out of £E.44,637,865, or 91 per cent.

Total Export of Cotton.	Kanṭârs.	Import into United Kingdom in kanṭârs.	Value.
1913	6,972,686	2,996,404	—
1914	5,909,788	2,444,849	£E.15,494,000
1915	6,899,132	3,198,096	£E.18,416,000
1916	5,416,936	2,751,667	£E.38,267,000
1917	4,073,700	2,549,993	£E.48,478,000
1918	5,019,689	3,528,401	£E.35,866,000
1919	6,708,706	—	£E.76,202,040

The cotton crop of 1918–19 was purchased by the British and Egyptian Governments at more than double the pre-war price; in April, 1920, the price of cotton was nearly 10 times its pre-war price. The value per ḳanṭâr was in 1914 12·01 dollars, and in 1919–20 it was 78·85 dollars. In 1919 the price of cotton-growing land rose as high as £E.700 per acre. The value of the **cotton-seed** exported to Great Britain in 1917 was £E.3,269,180, and in 1918 £E.6,394,130; the **cotton-seed cake** exported in 1917 was valued at £E.1,371,412, and in 1918 at £E.9,716; the value of the **eggs** exported to Great Britain was in 1917 £E.1,015,340; the **onions** exported in 1919 were valued at £E.424,634; **rice** at £E.550,590; **hides and skins** at £E.1,264,325; and **cigarettes** at £E.1,032,076.

Religion.—The census of 1917 showed that the population of Egypt (12,750,918) consisted of 11,658,148 Muslims, 856,778 Orthodox, 59,581 Jews; of the Christians 47,481 were Protestants, 107,687 Roman Catholics, 14,416 Christians of other denominations, and 8,827 miscellaneous. The Muslims form 91·43 per cent. of the population, Christians 8·03 per cent., Jews 0·47 per cent., others 0·07 per cent. The greatest Muslim institution in Egypt is the Mosque and University of Al-Azhar (founded A.H. 361—A.D. 972) with about 400 teachers and 10,000 students. There are branch

institutions at Ṭanṭâ, Damietta and Alexandria which had in 1914 about 2,900, 400, and 1,850 students respectively.

Education and Instruction.—In 1917–18 there were 3,534 native schools ("Maktabs") in the country, with 6,582 teachers and 209,186 pupils, boys and girls; the grant-in-aid, given chiefly by the Government, amounted to £E. 22,043. In 1919 there were 270 schools (special and technical, secondary, higher primary, higher elementary, infant, and higher colleges) under the immediate direction of the Egyptian Government. About 3,748 schools with 228,089 pupils were under the control of the Provincial Councils, and the Ministry of Education had under its direct management 104 schools of all classes with 34,381 pupils.




COOK'S PLAN
OF
ALEXANDRIA
Reference
1 Scotch Presbyterian Church
2 Abbas Hilmi Theatre
3 English Telegraph Office
4 Exchange
5 Statue of Mohammed Ali
6 Greek Catholic Church
Scale
½ Mile
Fharos
Fort Kait Bey
Fort Ada
Fort el Hetahch
EAST HARBOUR
Pharillon
Fort Silsileh
to Ramleh
Tabia el Nichan
Slaughter Houses
Government Ho.
Baths
Danube Baths
Roman Tower
Egyptian Hos.
Ramleh Station
Jewish Cemetery
European Cemeteries
Barracks
Rosetta Gate
Water Works
to Cairo
Moustahfaz
Ras-et-Tin Barracks
Barracks
Palace of Ras-et-Tin
Naval Arsenal
Arsenal Basin
Harem
Hospital
Lighthouse
Post Office
Bri. Consulate
Museum
Municipal Buildings
Kom ed Dik
Reservoir
Fort Kom ed-Dimas
Barracks & Gate of Moharrem Bey
Bab el Gedid Station
Fort Cafarelli
Custom House
Inner Harbour
WEST
HARBOUR
Outer Harbour
Mole
Minet el Bassal
Minet el Sharqawiyeh
New Bridge
Arab Cemetery
Pompey's Pillar
Kom es Chogafa
Fort
Catacombs
Gas Works
Gabbari
Gabbari Goods Station
Hippodrome
Mahmudiyeh Canal
Fort
LAKE MARIUT
(L. MAREOTIS)
to Cairo
Tower
MOHARREM BEY
Champs Elysées
Farkha
W. & A. K. Johnston Limited, Edinburgh
(1074/7/21J)

PART II.

LOWER EGYPT.

Alexandria and environs, Pompey's Pillar, the Catacombs, Abûkîr; Rosetta; Meks; Ramleh; Alexandria to Cairo; Cairo and environs—Museums, Mosques and Muḥammadan Architecture and Art, Old and New quarters of Cairo, the Citadel, the Mûski and Bâzârs, Coptic Churches of Old Cairo, Bûlâk, Island of Rôdah and the Nilometer, Tombs of the Khalîfahs and Mamelukes, Heliopolis, the Nile Barrage, the Pyramids, Memphis and Ṣaḳḳârah, Ḥelwân, etc.

From Cairo to the Fayyûm, Damietta, Mansûrah, the Oasis of Jupiter Ammon, Khârgah, etc.; to Jerusalem, to Mount Sinai, with notes on the Exodus.

Port Sa'îd to Cairo, Port Sa'îd, Isma'îlîyah, Suez (Suwêz) and the Suez Canal.

I.—ALEXANDRIA.

Cook's Office, 2, Rue Fuad I.

Hotels.—Savoy Palace Hotel, Majestic Hotel, Claridge's Hotel, Regina Palace Hotel, Majestic Palace Hotel, Windsor Hotel. At **Ramleh,** Casino San Stefano.

Electric Tramways in the town, starting from the Place Muḥammad 'Alî. Fares, 1st class 15 mill., 2nd class 7 mill. ; also to Ramleh and Meks.

Post Office in the Rue de la Poste, open from 7 a.m. till 12 noon and 2 till 9.30 p.m.

Telegraph Office of the Eastern Telegraph Co., Rue Télégraphe Anglais.

Churches.—St. Mark's, Place Mehemet Ali : Sunday services, 8 and 11 a.m., and 6.15 p.m. All Saints', Bulkeley, 8.30 and 11 a.m. and 6.30 p.m. American Mission, Rue Sidi el-Metwalli, 10 a.m. and 3 p.m. St. Andrew's (Presbyterian), close to the Post Office ; Sunday services, 10.30 a.m. and 6 p.m. Wesleyan, close to the Egyptian Post Office. Roman Catholic, St. Catherine, Rue Ste. Catherine.

British Consulate General.—Rue de l'Hôpital Egyptien.

U.S. Consulate.—Rue Adib.

Clubs.—Khedivial Club, 2, Rue Sharîf Pâsha ; Muḥammad 'Alî, 2, Rue Porte Rosette ; Union Club, 6, Rue de l'Ancienne Bourse ; British Club, 15, Rue de la Gare de Ramleh ; Alexandria Sporting Club, at Ibrâhimîyah, Ramleh.

Cabs (within the town)—

	1 horse.	2 horse.
	p.	p.
Not exceeding 10 minutes	3·5	5
,, 20 ,, ...	4·5	6.5
,, 30 ,, ...	5·5	8

Beyond half an hour 2 p. for every quarter of an hour for a one-horse cab, and 3 p. for a two-horse cab. Extra between 11 p.m. and 6 a.m.

(From the interior to the exterior, or *vice versâ.*)

These fares vary with time and distance (*see* local tariff).

Theatres.—Nuovo Teatro Alhambra, corner of Rue de l'Hôpital Egyptien and the Rue Missalla ; Jardin Rosette, Rue Porte Rosette.

Golf.—At Sporting Club, 18 holes.

THE traveller from Europe or America who wishes to visit Egypt may enter the country either by Alexandria or Port Sa'îd. Formerly the majority of travellers disembarked at Alexandria, for facilities for so doing were greater than at Port Sa'îd, the hotels were better, and quick trains to Cairo ran at comparatively frequent intervals. All the great mail steamers called there, and the Indian and Australian mails began their journey to Suez at Alexandria. In recent years it has been found better to disembark the mails at Port Sa'îd, and as travellers usually adopt mail routes, the passengers to Port Saî'd have greatly increased, while those to Alexandria have diminished in number, and this notwithstanding the fact that it takes some hours longer to reach Cairo from Port Sa'îd than from Alexandria. The Suez Canal Company's steam tramway has been converted into a railway, and the time occupied in journeying from Port Sa'îd to Cairo has been reduced from 7½ to about 5½ hours. Though it is more convenient in many ways to enter Egypt *viâ* Port Sa'îd, there is a great deal to be said for the traveller entering Egypt *viâ* Alexandria. No one would venture to assert that the attractions of Alexandria, the Ptolemaïc capital of Egypt, are equal to those of Cairo, the Arab capital of the country, still the city has an extremely well-defined interest of its own, and if the traveller does not visit it at the beginning of, or early in, his stay in Egypt, he is apt to find that at the end of his visit he has only a couple of hours to devote to it, or he may even be obliged to leave the country without seeing Alexandria at all. One or two days are sufficient to see what is best worth seeing in Alexandria, and less time is wasted if these are devoted to Alexandrian antiquities at the beginning of a tour in Egypt, than in the middle or at the end.

The **population** of the Municipality or **Governorship of Alexandria** in 1897 was 300,172 souls, 332,246 in 1907, and 444,617 in 1917. The receipts of the Municipality were in 1920 £E.422,000, the expenditure was £E.445,500; there was a deficit of £E.23,500. The imports were in 1918 valued at £E.33,535,624, and the exports £E.40,782,984. The British imports from Egypt were in 1918 valued at £E.44,469,567, and British exports to Egypt at £E.13,824,498.

Alexandria, *i.e.*, the city of Alexander, was founded 332 B.C. by Alexander III of Macedon, or Alexander I of Egypt, who is commonly known as **Alexander the Great.** The site chosen by him was close to the old Egyptian town called Rāqeṭit, , hence the Coptic name **Rakoti,** and was opposite the Island of Pharos, and was situated between Lake Mareotis and the Mediterranean Sea. Alexander's object in building a city on this site is clear: he intended it to be easy of access for the Mediterranean merchant ships, and to make it a central seaport of his empire, and there was no other site anywhere in the Delta which was so suitable for the purpose. The city, which was defended by a small guard, was in the form of a soldier's coat, and had one large and well-built street running almost through the middle of the town. The architect was called **Deinocrates,** and his plans were carried out by Cleomenes of Naucratis, assisted by Heron, Krateros, Hyponomos, and others. It is said that Alexander made all the people within a distance of 30 miles come and live in the new city, and that he called them "Alexandrians." As, however, Alexander only spent about five months in Egypt, he cannot have seen more than the foundations of Alexandria's walls and houses, and he can never have realized the importance to which his city was to attain.

Ptolemy I Soter (323-285 B.C.) made Alexandria his capital, and did a great deal to develop the city; he founded the **Museum** and the famous **Alexandrian Library,** and he brought numbers of Jews to Alexandria and made them settle in the eastern part of it; these were followed by others who were tempted "by the goodness of the soil, and by the liberality of Ptolemy," and the Jewish colony soon became a wealthy and powerful element in the city. Ptolemy introduced into Alexandria the worship of Hades, the Greek **god of Death,** and caused to be ascribed to him the attributes of Osiris and Apis, thus **Hades** became known as Osiris-Apis, or **Serapis,**

and a god was found whom both Greeks and Egyptians could worship with one accord. Ptolemy II appointed first Zenodotus of Ephesus to be Kepeer of the Great Library, which is said to have contained at that time 400,000, or according to some **700,000 volumes**, and afterwards Callimachus the poet, who arranged and labelled the papyri. Ptolemy III added largely to the Great Library, and procured for it the original MSS. of the works of **Æschylus**, **Euripides**, and **Sophocles**; the keepers in his reign were Aristophanes of Byzantium and Eratosthenes of Cyrene. Ptolemy after Ptolemy added to the public buildings of Alexandria, and, thanks to the energy and enterprise of both Greeks and Jews, the city became one of the wealthiest in the world, and its inhabitants were renowned for their learning and enlightenment. In 48 B.C. **Julius Cæsar** succeeded in entering the city, but unfortunately, if the tradition be true, the Library and Museum were burnt to the ground. Antony, Cæsar's successor in the affections of Cleopatra, is said to have attempted to make good this loss by presenting to her the **Pergamenian Library**, which was founded by Eumenes II, King of Pergamus 197 B.C., and was supposed to contain 200,000 MSS. During the Roman Period Alexandria was frequently the scene of terrible bloodshed and murder, and fighting between the Romans and Jews, and the Emperor Caracalla (A.D. 211–217) massacred large numbers of Alexandrians, because some of the more ribald of them dared to mock at his appearance and sacred person.

Tradition asserts that **St. Mark began to preach Christianity** in Alexandria about A.D. 69, and the Coptic Church regards him as the first Patriarch of Alexandria; whether this be so or not matters relatively little, for there is no doubt that there were many Christians in that city at the beginning of the second century. As their numbers grew they became the objects of intense hate both of Romans and Jews, but their presence was tolerated, and a century later they possessed a church and schools, and learned men directed their lives and religion. Under Decius, Valerianus, Diocletian, Julian the Apostate, and other Emperors the Christians suffered severe persecution, and neither peace nor security was to be enjoyed in the city for about 100 years, *i.e.*, from about A.D. 250 to 360. Trade began to decline in the third century, and when the Emperor Constantine founded Constantinople, and made it take the place of Alexandria as the chief eastern seaport of his empire,

the decay of the city was assured. In the reign of Theodosius I the Christians attacked the pagans, and destroyed their statues, and either burned their temples or turned them into churches; at the instigation of Theophilus, Patriarch of Alexandria, the temple and statue of Serapis were burnt in this reign. The iniquitous behaviour of the Alexandrian Christians is well illustrated by the murder of Hypatia, the daughter of Theon, a modest, beautiful, and learned lady of Alexandria. She was charged with having withdrawn the friendship of the prefect Orestes from Cyril the Archbishop, and Peter the Reader and a number of monks dragged her from her chariot into a church, where they stripped her, scraped her flesh with metal combs, and then tore her limb from limb (A.D 415). The disputes which raged between Arius and Athanasius, George of Cappadocia and Athanasius, Cyril and Nestorius, and the Anthropomorphists did more to injure the city than a foreign army would have done.

In 619 Alexandria was captured by Khusrau (Chosroës), King of Persia, 10 years later Heraclius regained possession of it, but in 641 it fell into the hands of 'Amr ibn al-'Âṣi, the commander-in-chief of the Khalîfah 'Omar. For about 1,150 years Alexandria possessed but little importance, but the bringing of the Maḥmûdîyah Canal to the town by Muḥammad 'Ali in 1819 helped to restore a little of its former prosperity, and the docks built by Isma'îl Pâshâ have done a great deal more.

When Alexandria was founded at Rakoti, the Island of Pharos was separated from the mainland; Ptolemy I, or his son Ptolemy Philadelphus, built an embankment or causeway which joined the two, and because it was seven stades long, the name of **Heptastadium** was given to it. This embankment has in the course of centuries been widened to such an extent that the greater part of the modern city of Alexandria is built upon it. The Heptastadium divided the harbour into two; that on the east was called the **Great Harbour**, and that on the west **Eunostos.** It is the latter of these into which modern ships of large tonnage enter, and here are found the breakwater, which is $1\frac{3}{4}$ miles long, and the other harbour works which Isma'îl Pâshâ constructed at a cost of £2,500,000 sterling. The Great Harbour is very shallow, and can only be used by fishing boats or craft of light draught. The **Pharos,** or lighthouse of ancient Alexandria, was built on the island opposite the city in the reign of Ptolemy II by **Sostratus**, the

Cnidian. It was built of white marble, and cost 800 talents, a sum equal to, if the Alexandrian talent be referred to, about £330,000 in our money; if the Attic talent is to be understood the sum would be £165,000. It is said that Sostratus was allowed to add his name to the monument with that of his royal master, and that he did so, saying, "Sostratus, the Cnidian, the son of Dexiphanes, to the gods, the saviours, for the benefit of sailors." This done he covered over his own name with mortar, and in it cut the name of Ptolemy, intending, when the mortar was dried and cracked, and had fallen out, that his name should stand alone on the monument.

Both the **Museum and Library** of Alexandria were probably founded by Ptolemy I. The Museum is said to have occupied one quarter of the whole area of the city, and to have been close to the palace; in connection with it were several buildings which were devoted to the pursuit of learning, and spacious gardens. The earliest Library was in the **Brucheion** and seems to have been regarded as a part of the Museum; the greatest additions to it were made by Ptolemy II, and it is pretty certain that before the close of the rule of the Ptolemies its papyrus rolls were numbered by hundreds of thousands. In 48 B.C., when Julius Cæsar was besieging the Brucheion quarter, he set fire to the ships in the harbour, and, the flames spreading, the Library was destroyed, and all its books with it. Seneca says that 400,000 books were burned, and Ammianus Marcellinus puts the number at 700,000. According to Mr. A. J. Butler, the library of the kings of Pergamus, which Mark Antony sent as a present to Cleopatra, and which contained 200,000 rolls, was not lodged in the Museum buildings, but in the temple of the Cæsarion, which was begun by Cæsar and finished by Augustus; a part may have gone to the **Serapeum.** The Serapeum was built to hold the statue of **Serapis,** and stood to the east of Rakoti, near Pompey's Pillar; it is said to have been one of the most beautiful buildings in the world, and to have been filled with remarkable statues and works of art. That some of the Museum buildings remained for a considerable time after the destruction of the first Library is quite certain, and it is nearly as certain that another great Library was founded in the Serapeum, and we know from Epiphanius that it was called the Daughter Library. The Cæsarion Library probably perished in 366, and the Serapeum Library was, no doubt, destroyed by the Christians under Theophilus the Patriarch, when they destroyed the image

of Serapis, and razed his temple to the ground. Some believe that this Library was not destroyed then, and that it survived until the conquest of Egypt by the Arabs; this belief rests on the statement of Bar Hebræus, born A.D. 1226, died 1286. According to this writer, there was in Egypt at the time of the conquest a man called **John the Grammarian,** who possessed influence among the Arabs. By some means he was able to make himself known to 'Amr ibn al-'Âṣi, and after the capture of Alexandria, he ventured to beg for the books of wisdom which were among the Imperial treasures. 'Amr was, however, unable to grant the request without the Khalîfah's orders, so he wrote to 'Omar, and received this answer: "As concerning the books which you mention, if what is written in them is consistent with the Book of God (*i.e.*, the Ḳur'ân), they are not wanted; if they be opposed thereto, they are not wanted. Therefore destroy them." Thereupon, says Bar Hebræus, the books were sent to the bath furnaces in Alexandria, and it took six months to burn them as fuel. This story first appears in writing five and a half centuries after the capture of Alexandria, but it had been current in an unwritten form apparently for centuries; the Copts believe the story even to this day, though they reduce the 180 days of book-burning to 70. Mr. Butler brings forward many common-sense objections to the story, the chief being that John the Grammarian must have been dead several years before the Arabs captured Alexandria. On the other hand, ancient traditions usually have a kernel of truth in them, however small, and there is no reason why this tradition should form an exception. In the face, however, of tradition and facts, and at this distance of time from the event, we can only say, with the Arabs themselves, "God knoweth the truth."

Other important buildings in Alexandria were:—The **Theatre,** which faced the little island of Antirrhodus in the Great Harbour; the **Sôma,** or Mausoleum, which contained the bodies of Alexander the Great and the Ptolemies; the **Gymnasium** and **Paneum,** which stood a little to the south-east of the Museum; the **Cæsarion,** or Palace of Cæsar, which stood a little to the north-east of the Library; a temple of Artemis, in the Lochias quarter, and a temple of Isis on the island of Pharos. The Jews lived in the eastern half of the city, beyond which were the **Hippodrome** and the cemetery; in Christian times the **Catacombs** were on the west of the city. The eastern entrance of Alexandria

was called the Canopic Gate, or the Sun-gate. The most interesting remains to be seen now are:—

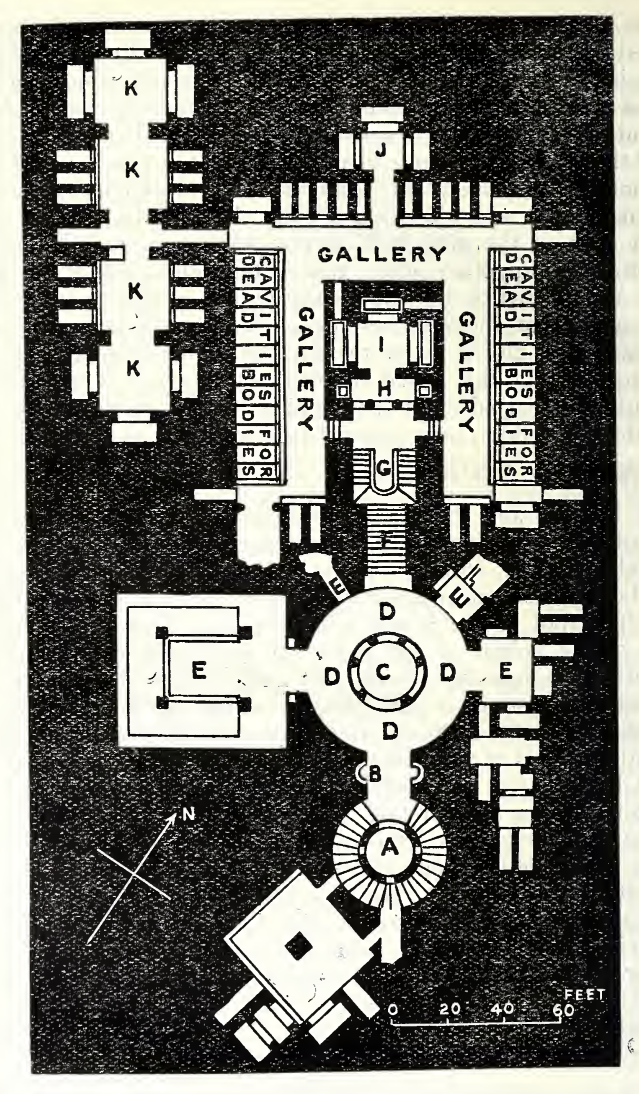
1. **Pompey's Pillar**, a striking monument made of granite. The shaft is about 70 feet high, and is fluted, and the capital is ornamented with palm leaves; the whole monument, including its pedestal, is nearly 90 feet high. The circumference of the pillar at the base is nearly 28 feet. About the history of this pillar there have been many disputes, and for a long time it was supposed that it was set up in honour of Pompey the Great. It has, however, now been shown that it belongs to the reign of Diocletian, and that it was erected in 302 by the Prefect of Egypt, who appears to have been called Pompey. According to one view, the pillar was the outcome of the gratitude of the Alexandrians to Diocletian, who decreed that a portion of the tribute of corn which was sent from Egypt to Rome should be applied to the relief of the wants of the Alexandrians. On the top of the pillar a statue of the Emperor Diocletian is said to have stood. Some authorities think that the pillar once stood in the Temple of Serapis, and yet others believe that it was set up by Theodosius in 391, to commemorate the destruction of the Serapeum. But no one really knows which view is correct.

2. The **Catacombs** lie on the west of the city, and contain many tombs of interest; they are built on the site of the old Ptolemaïc Necropolis, and range in date from the first to the fourth century A.D.

3. In the year 1900 a magnificent tomb of the Roman period was discovered at Kôm ash-Shuḳâfah, near Pompey's Pillar, in the quarry at this place, by some workmen, and thanks to the exertions of Dr. Botti, the Director of the Museum at Alexandria, this extremely interesting monument has been preserved in the state in which it was found. The tomb is divided into three stages, which descend into the living rock. It is entered by means of a circular staircase (A), which has been more or less restored, and when the visitor has passed through a narrow way with a semicircular recess (B) on each side, he arrives at a large rotunda (C) with a circular gallery (DDDD), out of which open a series of chambers (EEEE) which appear to have been dedicated to the worship of the dead. On the right the two chambers contain niches and sarcophagi; on the left is a large rectangular chamber, the roof of which is supported by four pillars, and it contains three tables hewn out of the solid rock, which were used for festival purposes by

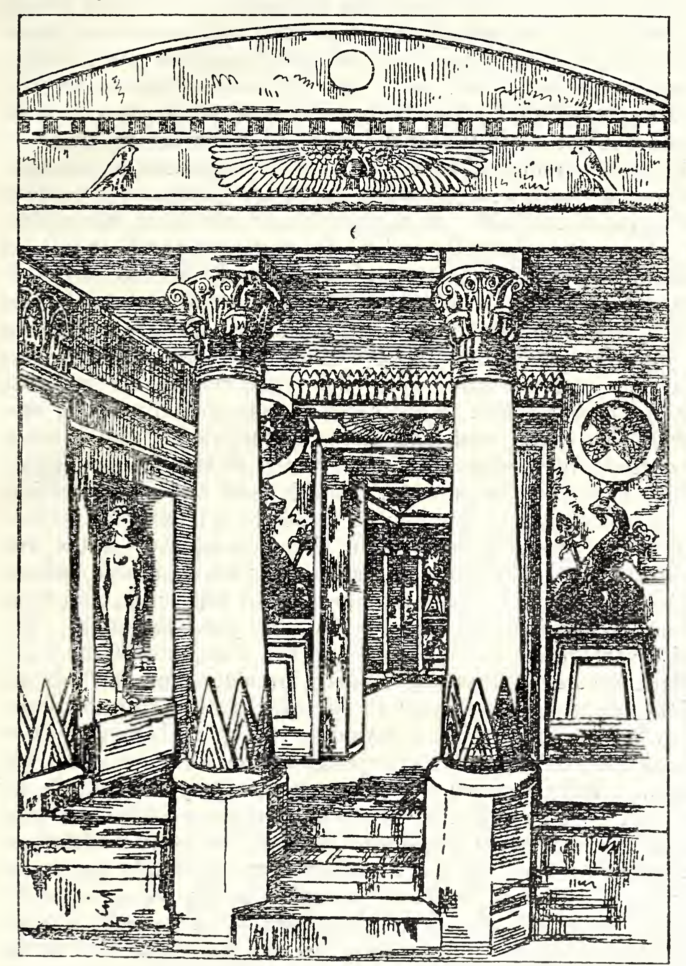
the relatives and friends of the dead who assembled there at certain times during the year. From the circular gallery a staircase leads to the second stage of the tomb, which contains the chief sarcophagus chamber; but a little way down it forks, and passes round the entrance (G) to the third or lowest stage of the tomb. The ante-chamber (H) of the tomb, or pronaos, contains two Egyptian columns which support a cornice ornamented with the winged solar disk, hawks, &c., in relief. In each of the side walls of the chamber is a niche, in the form of an Egyptian pylon; that on the right contains the statue of a man, that on the left the statue of a woman. It has been thought that these niches are ancient openings in the walls which were closed up for the purpose of receiving the statues. The door of the actual funeral chamber (I) is ornamented with the winged solar disk, and a cornice of uræi; on each side of the door, on a pylon-shaped pedestal, is a large serpent wearing the double crown, and with each are the caduceus of Hermes and the thyrsus of Dionysos. These serpents are probably intended to represent the goddesses Uatchet and Nekhebet, or Powers of the Græco-Egyptian Underworld. Above each serpent is a circular shield with a Gorgon's head.

The roof of the funeral chamber is vaulted, and the stone is of the colour of old gold; at each corner is a pilaster with a composite capital. In each of the three sides is a niche containing a sarcophagus, which is hewn out of the solid rock; the fronts of the three sarcophagi are ornamented with festoons of vine leaves and bunches of grapes, the heads of bulls, heads of Medusa, &c. Curiously enough no one seems to have been laid in them. In the principal relief of the right niche we see the figure of a king, or prince, wearing the crowns of the South and North, making an offering of a deep collar or breastplate to the Apis Bull, which stands on a pylon-shaped pedestal, and has a disk between its horns; behind Apis stands Isis with a solar disk encircled by a uræus upon her head, and holding in her right hand the feather of Maāt. The walls of the niches are ornamented with figures of Egyptian gods, and in the central niche is a scene in which the mummy of the deceased is represented lying upon its bier. The bier has the usual form, but above the lion's head is the Atef crown of Osiris, and at the feet is the feather of Maāt. By the side of the bier stands Anubis, with the solar



A. Circular staircase (entrance). B. Corridor with semicircular recesses. C. Rotunda. D. Circular gallery. E. Chambers. F. Staircase to second stage. G. Entrance to third stage. H. Ante-chamber. I. Funeral chamber. J. Sarcophagus chamber. K. Funeral chambers with cavities for dead bodies.

disk and uræi [hieroglyph] on his head; at the head of the bier stands Thoth, and at the feet is Horus, and under the bier are vases, containing the intestines of the deceased, dedicated to



The Pronaos and Entrance to the Funeral Chamber.

Qebḥsenuf (hawk-headed), Ḳestå (human-headed), and Ḥāpi (ape-headed). To the right and left of the door are figures of:—1. Anubis, standing upright, in human form,

jackal-headed, with a solar disk on his head; his right hand rests upon the edge of a shield which stands on the ground by his side, and in his left he clasps a spear; round his neck and shoulder hangs a belt from which is suspended a short sword. 2. Set (?), in the form of a human body with arms and hands of a man, and the head and tail of a crocodile; in his right hand he clasps a spear, and in the left the end of a cloak.

Round the funeral chamber in which these reliefs occur, on three sides, is a comparatively spacious gallery, in the walls of which are hollowed-out cavities, each large enough to hold three dead bodies; there are traces of the names of those who were buried in them. At the north-west corner of this gallery is a corridor which leads into four other chambers, two of which have in them niches for sarcophagi, and two are provided with cavities wherein bodies might be laid on stone slabs at intervals, one above the other. We have already mentioned a third stage of the tomb, which was approached by an entrance situated just below the place where the staircase leading from the first to the second stage forked; this is now filled with water, and cannot be investigated. The tomb is the most interesting of all the tombs of the Roman period which have been found in Alexandria, and is very instructive. It is, unfortunately, impossible to assign an exact date to it, but it was probably built in the first century B.C. or the first century A.D. The name of the man for whom it was built is unknown, but it is clear that he was of high rank, and there is no doubt that his religion was *au fond* Egyptian. The artistic treatment of the figures of the gods, and of the walls, pillars, &c., exhibits strong Roman influence, and the mixture of the two styles of funereal art is better illustrated in this tomb than in any other of the period to which it belongs. It is hard to explain why the sarcophagi in the niches of the main funeral chamber have not been occupied by the people for whom they were intended, and it is difficult to understand why others were made in other chambers of the tomb whilst these remained empty. It would appear that the tomb was made for the head of a large and powerful family, the members of which respected the places that had been left for certain members of it, and judging from the amount of space for burial which was actually occupied, we are justified in thinking that the tomb was used as a private mausoleum for about 150 or 200 years.

In recent years a number of important **excavations** have

been carried on in Alexandria by Dr. Botti, Mr. D. G. Hogarth, and others, and several important monuments have been brought to light, but the additions to what was known of the site of the ancient city have been few. It is pretty certain that there is little hope of finding any remains of the buildings of the great Library, Serapeum, etc., and as each year the builder and the sea cover up a good deal of ground, the outlook for the archæological excavator is not good. In 1914-15 M. Gaston Jondet made a careful examination of the Island of Pharos, and discovered the remains of a **Pre-Roman harbour** on the west side of the island. The portion of the ancient harbour located by him was 2 kilometres long, and from 400 to 800 kilometres wide. Archæologists have also turned their attention to the coast of the Delta, and M. Clédat has explored that part of it which runs from the site of Pelusium eastward to Al-'Arîsh. He has discovered remains of the old military station of **Ostracima** (mentioned by Ptolemy and Pliny) near Lake Serbonis. During the Roman Period it was supplied with water by a canal which was fed from one of the eastern arms of the Nile. M. Clédat has also carried out some interesting excavations on an island off **Paraetonium**, an ancient port of Marmarica or Ammonia, now known by the name of Mersa Maṭrûh. To preserve such remains the Egyptian Government founded the **Museum of Græco-Roman Antiquities** at a cost of £E.10,000; it is maintained by the Municipality at an annual expenditure of £E.1,200. Herein are exhibited in more than 20 rooms a large and most interesting collection of the antiquîties that have been found at Alexandria and in the neighbourhood, and a vast number of smaller objects which illustrate the art, architecture, sculpture, and funerary customs of the Egypto-Alexandrians during the Græco-Roman Period and the early centuries of the Christian Era. The smaller objects are most important for understanding the religion of the Period, and their arrangement is admirable. The phallic collection is most varied and is probably unique, but it can only be inspected by the special permission of the keeper, and Dr. Botti's *Catalogue* is a valuable work and merits careful study. An archæological library also has been formed in the institution, and it already contains several thousands of volumes printed in various ancient and modern languages.

Among places which may be visited if time permits are **Meks,** on the sea-coast to the south-west of the city, and **Ramlah,** on the coast to the north-east. The pair of granite

obelisks which were brought from Heliopolis and set up before the Cæsarion, and are commonly known as "**Cleopatra's Needles,**" stood near the railway station for Ramleh. The larger obelisk was given to the British by Muḥammad 'Ali early in the nineteenth century, but was not taken to England until 1877, when the expense of transport was defrayed by the late Sir Erasmus Wilson; after an eventful voyage it arrived in London, and now stands on the Thames Embankment. The second obelisk, which was given to the Americans, now stands in New York. The obelisks were made for **Thothmes III**, but **Rameses II** added inscriptions to them in which he recorded his titles of honour and greatness. On the pedestal of "Cleopatra's Needle" the Earl of Cavan caused the following inscription to be cut:—

In the Year of the Christian Era 1798, | The Republic of France | Landed on the Shores of Egypt an Army of 40,000 Men, | Commanded by their most able and successful Bonaparte, | The Conduct of the General and the Valour of the Troops, | Effected the entire subjection of that Country; | But under Divine Providence it was reserved for the British Nation | To annihilate their ambitious Designs. | Their Fleet was attacked, defeated, and destroyed, in Aboukir Bay, | By a British Fleet of equal Force, | Commanded by Admiral Lord Nelson. | Their intended conquest of Syria was counteracted at Acre | By a most gallant Resistance under Commodore Sir Sidney Smith; | And Egypt was rescued from their Dominion | By a British Army, inferior in Numbers, but | Commanded by General Sir Ralph Abercrombie, | Who landed at Aboukir on the 8th of March 1801, | Defeated the French on several Occasions, | Particularly in a most decisive Action near Alexandria | On the 21st of that Month, | When they were driven from the Field, and forced to shelter themselves | In their Garrisons of Cairo and Alexandria, | Which Places subsequently surrendered by Capitulation. | To record to Future Ages these Events; | And to commemorate the Loss sustained by the Death of | Sir Ralph Abercrombie, | Who was mortally wounded on that memorable Day, | Is the design of this Inscription. | Which was deposited here in the year of Christ 1802 | By the British Army on their evacuating this country, | And restoring it to the Turkish Empire.

The traveller who has time to spare should not fail to visit both **Abuṣîr** and **Bu Mna** or the **Town of St. Mîna** or Menas. Both places can be easily reached by train from Alexandria to **Bahig,** a station on the Mareotis Railway, and then by riding to the ruins, a few miles distant. The ruins of **Abuṣîr** are thought to mark the site of **Taphosiris,** a famous Tomb of Osiris, and the remains of the massive limestone walls of the Egyptian temple, which was over 300 feet long, proves that the shrine was of considerable importance. By climbing a much worn stairway, in either of the towers, a splendid view of the surrounding country can be obtained.

The **Town of St. Mîna** stood in the desert, and was for many centuries a famous place of pilgrimage. Mîna, or Mêna, was originally a soldier who served under Firmilianus in the reign of Diocletian. He fled to the desert, where he fasted and prayed for a long time, and then returned to the city, where he proclaimed himself to be a Christian. He was carried before Pyrrhus, the prefect, who tortured him and at length had him beheaded. His body was rescued from the fire into which it was cast, and buried in Alexandria, and his followers built a church over it, but subsequently it was taken to his native city of Mareotis, and many miracles were wrought in the place where it lay, through the water of a neighbouring spring. Church after church was built over his tomb, and that built by Theodosius (378–395) became the nucleus of the great monastery and town which, under the name of Al-Mûna, flourished in the fifth century. The town was excavated in 1905 by Monsignor C. M. Kaufmann who has accurately fixed its site, which is situated half-way between Alexandria and Wâdî an-Naṭrûn. It fell into decay after the Arab conquest of Egypt, but the Copts built a church to the saint in the eighth century, and the glory of the town revived. Before the close of the ninth century this church was destroyed by the Arabs, and the town gradually became a ruin. The church built by Arcadius (395–408) was a handsome building, and had nave, aisles and transept, and a large number of pillars. But the church which probably covered the body of the saint stands to the west of the basilica, and beneath it was a large crypt, reached by means of a marble stairway. In the course of his excavations Monsignor Kaufmann found the remains of several potteries in which the famous holy-water flasks of St. Mîna were made, and the ovens in which they were baked.

Those who are interested in the modern history of Egypt may visit the village of **Abuḳîr,** near which the Battle of the Nile was fought on August 1st, 1798. Horatio Nelson engaged the French Admiral Brueys and captured nine of the enemy's line-of-battle ships and burned two. The French ship "L'Orient" blew up with Brueys and 1,000 on board, and only about 80 escaped. At this place on July 25th, 1799, Napoleon with 5,000 soldiers defeated the Turkish army of 25,000 men; on March 8th, 1801, Sir Ralph Abercromby defeated the French here, and Abuḳîr fell into the hands of the British. About 3 miles from Abuḳîr are the ruins of the city of Canobus,

or **Canopus,** which stood at the mouth of the Canopic arm of the Nile. At this place the god Canopus, in the form of a vase with a human head, was worshipped, and the Ptolemies built a temple there to Serapis. A legend declares that Canopus, the pilot of Menelaus, died and was buried here on the return of the Achæans from Troy ; some derive the name of the town from this hero, but it is far more likely that the name of the town was called after the god Canopus. In old days a manufactory of *henna*, the dye used by women in staining the nails of their hands and feet, stood here. In the reign of Ptolemy III the priests of Canopus promulgated a decree in which they enumerated the benefits conferred on the country by the king, and ordered that certain festivals, etc., were to be celebrated in his honour. The decree was drawn up in two forms of Egyptian writing, *i.e.*, hieroglyphics and demotic, and in Greek, and copies of it were ordered to be set up in the great temples of the land. Three copies of the decree have been discovered, and the largest and finest of these monuments was found at Ṣân in the eastern Delta.

Some 30 miles further on the line is the town of Rashîd, or **Rosetta,** which marks roughly the site of the ancient city of Bolbitine, and stands near the mouth of the main western branch of the Nile. Rosetta was taken by the French in 1798, and by the British and Turks on April 19th, 1801 ; the Turks repulsed the British here on April 22nd, 1807. In the reign of Ptolemy V the priests of Memphis promulgated a decree similar in many ways to the decree of Canopus ; it enumerated the great benefits which the king had conferred on the country, and ordered that certain honours should be paid to his statues in the temples of Egypt. The last paragraph commanded that copies of the decree, written in the three forms of writing mentioned above in connection with Canopus, should be set up in all the great temples of Egypt. The last portion of the Decree reads :—" And the priests of all " the temples which are called after his name shall have, in " addition to all the other priestly titles which they may " possess, the title of 'Servant of the god who maketh " 'himself manifest, whose deeds are beautiful' ; [*and this title* " *shall be endorsed on all deeds and documents which are laid* " *up in the temples*] ; and they shall cause to be engraved on " the rings which they wear on their hands, the title of 'Liba- " 'tioner of the god who maketh himself manifest, whose deeds " 'are beautiful.' And behold, it shall be in the hands of those

"who live in the country, and those who desire [it], to establish "a copy of the shrine of the god who maketh himself manifest, "whose deeds are beautiful, and set it up in their houses, and "they shall be at liberty to keep festivals and make rejoicings "[before it] each month and each year; and in order to make "those who are in Egypt to know [*why it is that the Egyptians* "*pay honour—as it is most right and proper to do—to the* "*god who maketh himself beautiful, whose deeds are beautiful,* "*the priests have decreed*] that this DECREE shall [*be inscribed*] "upon a stele of hard stone in the writing of the words of the "gods, and the writing of the books, and in the writing of "NEBU MEḤT (*i.e.*, Greeks), and it shall be set up in the "sanctuaries in the temples which [are called] by his name, "of the first, second, and third [class], near the statue "of the HORUS, the King of the South and North "(Ptolemy, ever-living, beloved of Ptaḥ), the god who "maketh himself manifest, whose deeds are beautiful."

In obedience to this command the priests of Rosetta set up a copy of the decree of Memphis, inscribed on a slab of basalt, and a large portion of this slab was found by M. Boussard, a French Engineer Officer, in 1799, and was afterwards obtained for the British by the Treaty of Alexandria. This copy of the Memphis Decree is known as the **Rosetta Stone,** and from it was obtained the correct clue to the decipherment of the Egyptian hieroglyphics. The Rosetta Stone is in the British Museum.

II.—ALEXANDRIA TO CAIRO.

BETWEEN Alexandria and Cairo are passed several of the most important towns in the Western Delta. Immediately on leaving the city the railway runs by the shore of Lake Maryûṭ, the **Mareotis** of the classical writers, and the MERIT of the hieroglyphic texts, where Hathor and Sebek were worshipped. The country around was famous for its wine, and the Egyptians described it as the "vineyard of Amen"; it was watered by the Nile, and large numbers of fishermen and carriers lived there. During the Middle Ages large portions of the lake dried up, and the inhabitants of the

country round about settled on the old lake-bed, and built villages there. During the war between the French and the British (1798–1801), the latter, knowing that the land round Alexandria was below sea-level, cut through the narrow strip of land between the sea and Lake Mareotis, and inundated the country with salt water. The villages were destroyed, and thousands of people were rendered homeless by this foolish, not to say wasteful, act. It can only be paralleled by the deed of the Alexandrians who, when Cæsar was besieging the city of Alexandria, let the sea into the cisterns of fresh water from which the inhabitants drank. The sea was let into Mareotis by a breach cut near Abuḳîr. In recent years the drainage of Lake Abuḳîr has been begun, and it is said that when this has been effected, an attempt will be made to reclaim all the land which the British submerged. Incidentally a slight benefit has accrued to Egypt from the submersion, for during the summer pure white salt formed in layers 3 or 4 inches thick, and, salt being formerly a Government monopoly, some addition to the revenue was obtained.

The village of **Kafr Ad-Dawâr,** with 14,755 inhabitants, is passed about **mile 17**, and at **mile 39** we arrive at **Damanhûr,** a town the inhabitants of which are engaged for the most part in the cotton trade. Its population in 1919 was 47,867. The town marks the site of the Egyptian town Ṭemâi-en-Ḥeru, , which the Romans called **Hermopolis Parva**. Damanhûr is the capital of the province of Baḥêrah, and is a prosperous place, being an important cotton centre. There is little of interest in the town, and the mosques are not very attractive.

West of the railway at about **mile 50** is the village of **Nabîrah,** with 3,476 inhabitants, and quite close to it are series of mounds which mark the site of **Naucratis,** a city in which the Greeks were permitted to settle and trade by the kings of the XXVIth dynasty, who bestowed upon them many privileges. It was founded by Amasis (II). The Egypt Exploration Fund carried on a series of excavations at Nabîrah in 1884–5, and the results are described in the *Third Memoir* published in 1888. The ruins do not repay the traveller who visits them for his time as they are four miles from the railway. At **mile 54** is Ityâi al-Bârûd, commonly called **Tah-al-Barûd,** a village with about 5,057 inhabitants; there are in the neighbourhood several mounds which probably contain the

remains of Ptolemaïc or Roman towns, but none appears to have been explored.

At **mile 64 Kafr Az-zayyât,** a town on the east side of the Rosetta arm of the Nile, with nearly 13,628 inhabitants, is reached. The town is prosperous and thriving, but has little interest for those who are not occupied with the study of native character and customs. From Kafr Az-zayyât a journey may be easily made by river to the mounds at **Ṣâ al-Ḥagar,** with a population of 7,187 inhabitants, which mark the site of **Saïs,** the SAUT, [hieroglyphs], of the hieroglyphic inscriptions. They lie on the east side of the Rosetta arm of the Nile, and prove that Saïs, the home of the kings of the XXVIth dynasty, must have been a large and a thriving city. The chief deity of Saïs was the goddess Net, or Neith, to whom were ascribed all the powers of a self-produced deity. The city was raised artificially above the level of the surrounding country, and its walls were 100 ft. high and 70 ft. thick. The kings Amasis and Psammetichus were buried there. The mysteries of Neith or Isis were performed on the lake behind the temple of the goddess, who was made to declare, "I am what hath been, what is, and what will be"; they were, no doubt, a sort of sacred play in which scenes connected with the incidents of the death and sufferings of Osiris were represented. The temple of Neith, or Minerva, as the classical writers called her, must have been a wonderful building, and it won the admiration of Herodotus, who appears to have been much impressed with all that he heard about Saïs. From Ṣâ al-Ḥagar by steamer down the arm of the Nile to Rosetta is an easy journey, and the traveller may obtain many interesting examples of Delta scenery on the way.

About **mile 75** we arrive at **Ṭanṭâ,** a town which in 1919 had a population of 74,195 souls; it is the capital of the great province of Gharbîyah, and is a great commercial, social, and religious centre. From Ṭanṭâ railways run to Manṣûrah on the north-east and to Manûf on the south-west, and to Banhâ, and in this way the town is easily accessible from all parts. From one point of view it has a holy character, and Muḥammadans flock thither from outlying and seaport villages, and from the Western Delta, their object being to pay their vows at the **tomb of Sayyid Aḥmad al-Badawî,** a famous saint who was born at Fez in Morocco in the twelfth century, and who lived for many years at Ṭanṭâ, and died there. A mosque has been built there in his name, and folk having sicknesses of

all kinds come to his tomb for healing. The festivals of this saint are three in number: one is observed in January, one at the end of March, and one in the beginning of August, but the last named is the greatest of all. Each festival begins on a Friday and ends on the next Friday. The inhabitants of Ṭanṭâ are somewhat fanatical at the best of times, but during the August festival they become much more so, for the whole town is given over to riotous rejoicings of every description, all the ordinary business of life is suspended, and clowns and buffoons of every class fill the main streets and open spaces of the town, and carry the revelry far into each night of the festival. In some quarters the scenes are indescribable.

In view of the great interest which has recently been taken in the Tomb of Shêkh Sayyid Aḥmad al-Badawî the following facts about his life may be useful. Abû al-'Abbâs Aḥmad ibn 'Alî al-Badawî was descended from Muḥammad the Prophet on both his father's and mother's side. He was born at Fez in Morocco, whither his parents had emigrated during the time of Al-Ḥaggâg, who was slaying the Ashrâf, or noble families in Mecca, towards the end of the XIIth century of our era. When he was seven years old his father took him back to Mecca (1206), and the whole family were welcomed by the inhabitants; here he lived until his father died in 1229. He was of so bold and fearless a disposition that he was nicknamed Al-Badawî, *i.e.*, the "desert man," and the "destroyer." He was deeply versed in the Ḳur'ân, and after several years of profound study, adopted the life of a saint and became a recluse; he shunned society of all kinds, avoided conversation with his fellow-men, and having taken a vow of silence only talked to his friends by means of signals. In 1235 he saw three visions in one night, and in each of them a being appeared and said to him, "Arise, young man, and get thee to the place of sunrise, and when thou hast reached it, get thee to the place of sunset. And thou shalt go to Ṭanṭâ, and there shalt thou live." In obedience to these commands he rose up, and, having told his relatives what he had seen, went to 'Irâḳ, where he was welcomed by the shêkhs. Having visited the tombs of the saints, he set out for Umm Obêḍah, where there lived a courtesan of great renown and beauty called Fâṭma bint Bar'î; he visited her, and preached to her, and she repented. Aḥmad then left for Egypt and went to Ṭanṭâ, where he took up his abode in the house of Shêkh Shuḥêṭ. He went up to the roof and lived there, and spent

his days and nights in gazing fixedly at the heavens. At length the pupils of his eyes turned from black to a fiery red, and they blazed like fire. It is said that he took neither food nor drink, and slept not for forty days at a time. Subsequently, he left the roof of the house and went to the village of Fîsha, where a certain man called 'Abd al-'Âll became his disciple. Aḥmad wore two veils, so that his glances, which were said to be death-dealing, might not injure those on whom he looked. One man insisted on seeing his face, and having done so fell sick and died. Aḥmad was tall of stature, with thick legs and long arms. His face was large, his eyes black, his nose aquiline, his skin brown; on his face were three smallpox marks, and on his nose two black spots, one on each side. He wore his turban and clothes until they dropped off him. His fame was great, and on his birthday Muḥammadans came to visit him from all parts of the East. He died in 1276,* having nominated Shêkh 'Abd al-'Âll his successor.

The **Mosque of Aḥmad** at Ṭanṭâ is a fine and imposing building, and its courts and halls are of grand dimensions. The first mosque was built in 1276, and the present mosque was erected by 'Abbâs I and Ismâ'îl Pâshâ. The tomb of the saint is surrounded by a fine brass railing, with a massive gate, which is thronged with men and women, who, in turn, grasp the handles, and invoke the saint's help. The men ask his blessing on their business undertakings, and the women pray for children. On the right-hand side of the gate is a large wooden, metal-bound chest, with a slot, through which the visitors to the mosque drop their offerings. About £E.35,000 are collected yearly in this box, chiefly in small coin, and the widow's mite (which in this case is one *para*, *i.e.*, one-fourth of a farthing!) ranks equally with the gold coin of the cotton merchant. On the walls of the tomb-chamber are several beautiful large tiles, with extracts from the Ḳur'ân on them, and in one corner is a stone with deep hollows impressed in it, which are said to have been caused by the Prophet's foot. A portion of the hair of the Prophet is treasured in the mosque. The *mimbar*, or pulpit, is a fine object. All day long the courts are crowded with pupils and students, who sit in circles on the floor round learned Mullahs as they explain the Ḳur'ân,

* I owe these facts to Mr. Elias G. Aggane, of Ṭanṭâ, and to Dr. Murad, of the same town. The former gentleman obtained permission for me to go through the Mosque of the Saint, and showed the interesting objects which are preserved in it. The visit was a most interesting one, and the scenes which we saw in the Courts of the Mosque were extremely instructive.

and take voluminous notes. The teaching here is carried on just as in the great Mosques of Damascus, Baghdâd, Kâdam, and Karbala, and the Mosque of Aḥmad is undoubtedly the stronghold of uncompromising Muḥammadanism in Egypt, and, it may be added, of fanaticism. The students of the Mosque number about 2,000. In the mosque are also the tombs of 'Abd al-'Ali and his brethren, and the tomb of Shêkh Mugâhid. The bodies of the dead are sometimes carried into the mosque to receive Aḥmad's blessing before burial.

The American Mission Hospital.—Within spacious grounds, in a fine location to the north of the city, are the new and commodious buildings of the Ṭanṭâ Hospital. The hospital wards are located in two roomy buildings, along the entire length of which extend wide verandahs shaded from the hot sun by tiled roofs. In another building near these are the kitchens, &c., and the nurses' quarters. At the front is the administration building, which also contains the residence of the physicians; and on the ground floor are the rooms where a clinic is daily held, when hundreds receive treatment, a great many of them coming especially for eye diseases. Here also the patients receive religious instruction while waiting for treatment. This institution was opened in 1904, and is unique among the hospitals of Egypt in that it is intended solely for the **treatment of women and children.** Some hundreds are received annually as in-patients, and thousands are treated at the daily clinics. The physicians are women, assisted by a corps of American and English trained nurses, the first Director being **Dr. Lawrence,** an American lady. The hospital was built with money contributed entirely by women and children in the United States, and from these it receives its support. In addition to the medical and surgical treatment given, an effort is made to instruct the wives and mothers in the principles of cleanliness and hygiene, and in the care and feeding of children. In **1909** the number of patients admitted was 446; number of operations, 174; number of visits to clinic, 14,051; house visits, 978; village visits, 75; villages visited, 24; obstetrical cases, 37. In recent years the operations of the hospital have been extended very considerably, and at the present time its value to the town is inestimable.

At **mile 101** we arrive at the important junction of **Banhâ** (population 18,607), or more fully Banhâ al-'Asal, *i.e.*, "Banhâ of the Honey," so called because formerly it was famous for its honey, a pot of which is said to have been sent to Muḥammad

the Prophet by the Copt Maḳawḳas, who betrayed the fortress of Babylon to the Arabs. Banhâ is the capital of the province Ḳalyûb. Close to the town are a number of mounds which mark the site of the ancient city of **Athribis.** The ancient town was founded by the Egyptians, who called it Ḥet-ta-ḥer-âbt, [hieroglyphs], *i.e.*, "the temple of the middle land," or the temple in the province between the two great arms of the Nile, and was an important place under the Ptolemies, who enlarged it and set up many splendid buildings in it. In the fourth century of our era it was held by Ammianus Marcellinus to be one of the largest cities in the Delta. In Christian times a beautiful church stood here: it was 250 feet long, it contained 160 pillars, the sculptured sanctuary was ornamented with gold and silver, and in it was a figure of the Virgin inlaid with precious stones, and arrayed in silk, and close by were portraits of Michael, Gabriel, and other saints. The gold and silver lamps burned continually. The chief deity worshipped here by the Egyptians was the goddess Hathor, and the Christians appear to have transferred many of her attributes to the Virgin Mary.

At **mile 120** is the town of **Ḳalyûb,** with a population of 19,312 inhabitants, the capital of a district. From this town runs the main line to Zaḳâziḳ, in a north-easterly direction, and a short line, which runs due west, will take the traveller to the Barrages, which were designed and partly built by Mougel Bey, and finished by Sir Colin Scott-Moncrieff and Sir W. Willcocks. The Barrages are usually reached by train from Cairo to the little station of Al-Manâshi, on the western bank of the Nile, or by steamer from Cairo. After Ḳalyûb the railway runs nearly due south, and in a very short time the traveller has passed through the verdant suburbs to the north of the capital, and at **mile 130** he enters **Cairo.**

III.—CAIRO.

Cook's Office, near Shepheard's Hotel.

Hotels.—Semiramis Hotel, Shepheard's Hotel, Continental Hotel, Savoy Hotel, New Khedivial Hotel, Bristol Hotel. **At the Pyramids:** Mena House Hotel. **Heliopolis:** Heliopolis Palace Hotel, Heliopolis House Hotel. **Helwân:** Grand Hotel, Tewfik Palace Hotel, Hotel des Bains, Al-Hayat Hotel.

Railway Stations.—**1. Central,** in the north-western part of the town, for trains to Alexandria, Port Sa'îd, Suez, and Upper Egypt. **2.** Pont Limûn, near Central Station, for trains to Heliopolis, Maṭarîyah, etc. **3.** Bâb al-Lûḳ, for trains to Helwân. Hotel Omnibuses meet principal trains.

Post Office, corner of Shâri' Ṭâhir and Shâri' al-Baidaḳ; open from 7.30 a.m. till 9.30 p.m.; also in Cook's office.

Telegraph Offices of the Eastern Telegraph Company at the corner of the Shâri' 'Imâd ad-Dîn and Shâri' al-Manâkh.

British Agency and Consulate-General, The Residency. **Consulate,** Shâri' Gâmi' ash-Sharkas.

U.S. Agency and Consulate-General, Shâri' Lazogli, Ḳaṣr al-Dubârah.

Doctors' Addresses—also **Chemists'**—may be obtained at any of the hotels.

Churches.—All Saints, Bûlâḳ Road; St. Mary's, 9, Ḳaṣr al-Dubârah; Sunday services, 11 a.m. and 6 p.m. American Mission, opposite Shepheard's Hotel; service at 6 p.m. French Protestant Church, Shâri' 'Abbâs. Roman Catholic Church of the Assumption, Shâri' al-Banadkia; St. Joseph, Ismâ'ilîyah Quarter; and La Vierge du Carmel at Bûlâḳ. Scottish Church (opened 1909), service 10.30 a.m.; St. Andrew's Church, Abu'l 'Elah Bridge, Shâri' Bûlâḳ, services 10.30 a.m. and 6 p.m.

Cabs.—If hired and discharged within the city circle. For 1 kilom. or less, 3½ piastres; each 400 m. beyond, 1 piastre; for each wait of 15 minutes, 2½ piastres. If by time, per hour or fraction, 12 piastres; each ¼ hour beyond, 2½ piastres.

Electric Tramways.—There are fifteen lines in all, and the fares are uniform: 1st class, 12 millièmes; 2nd class, 6 millièmes. Mena House Hotel and Pyramids: 1st class, 5 piastres; 2nd class, 2½ piastres.

The **principal centre is in the 'Atabah al-Khadrah.** Routes: **1.** 'Atabah al-Khadrah to 'Abbâsiyah. **2.** Ghamra to the Cemetery. **3.** Khedivial Sporting Club to 'Atabah al-Khadrah. **4.** Place Khâzindâr to Attar an-Nabi. **5.** Atabah al-Khadrah to Shubrah (branch to Rôd al-Farag). **6.** Zabṭiyah to Sayyidah Zênab. **7.** Embâbah to the Citadel. **8.** Mîdân az-Ẓâhir to Sayyidah Zênab. **9.** 'Atabah al-Khadrah to Sakakini. **10.** Central Railway Station to Sayyidah Zênab (circular route). **11.** Citadel to Technical Schools, Bûlâḳ. **12.** Central Railway Station to Gamamîz. **13.** Place Khâzindâr to Imâm as-Shâfi'i. **14.** Rôd al-Farag to the Citadel (*viâ* Bûlâk). **15.** Rôd al-Farag to Atabah al-Khadrah.

Golf.—Gazîrah Sporting Club (18 holes), Mena House (9 holes), Heliopolis Sporting Club (18), Helwân (18), Maadi (18).

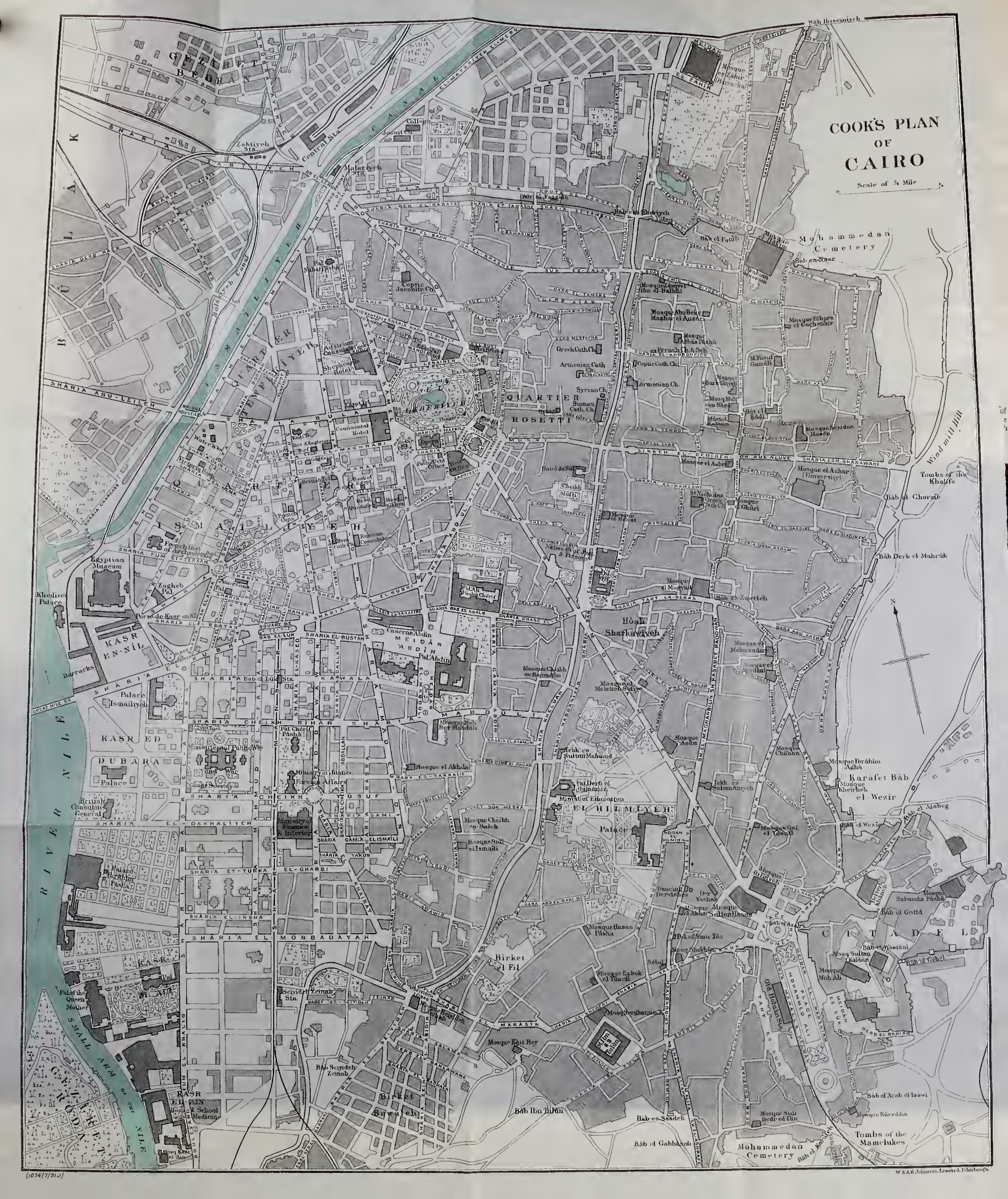
A line also runs from the Kasr an-Nîl Bridge to Mena House Hotel and the Pyramids, cars about every half-hour; also to Heliopolis and Helwân Station.

Theatres.—Sulṭânic Opera House, next the Ezbakîyah Gardens; Kursaal, and Cinemas.

Clubs.—Mehemet Ali, Shâri' Sulêmân Pâshâ; Turf Club, Shâri' al-Maghrabî; Gazîrah Sporting Club, Gazîrah; Heliopolis Sporting Club, Heliopolis Oasis.

Steamers, *see* p. 22; local steamer excursions to the Barrage and Badrashên (for Memphis, Ṣaḳḳârah, Helwân, &c.) are arranged by Thos. Cook & Son. Launches may also be hired for the day for private parties. Particulars of these may be obtained from Cook's Office.

Excursions.—The following excursions may be made from Cairo:— **1.** Old Cairo and the Island of Rôḍah. **2.** Tombs of the Khalîfahs and the Mamelukes; Muḳaṭṭam Hills, the Petrified Forest and Spring of Moses. **3.** Heliopolis and the Virgin's Tree. **4.** Delta Barrage (steamer). **5.** Pyramids of Gîzah. **6.** Memphis and Pyramids of Ṣaḳḳârah (steamer).


COOK'S PLAN OF CAIRO
Scale of ¼ Mile
Mohammedan Cemetery
Tombs of the Khalifs
Bâb el Ghorâib
Bâb Derb el Mahrûk
Wind mill Hill
QUARTIER ROSETTI
Hôsh Sharkawiyeh
Mosque el Azhar (University)
Egyptian Museum
Khedive's Palace
KASR EN-NÎL
Barracks
GREAT NILE BR.
Palace Ismailiyeh
KASR ED DUBARA
Palace
British Consulate General
RIVER NILE
SMALL ARM OF THE NILE
GEZIRET RODA
Birket el Fil
Bâb Ibn Tulûn
Bâb es-Saadeh
Bâb el Gabbâsah
Mohammedan Cemetery
Tombs of the Mamelukes
Bâb el Arab el Isawi
CITADEL
Karâfet Bâb el-Wezir
Birket Buwatteh
Bâb Seyideh Zeinab
ISMAILIYEH
EL HILMIYEH
GEZIRET BEDRAN
BULAK
ISMAILIYEH CANAL
(1074/7/21 J)
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The oldest Muḥammadan capital of Egypt was called "**Al-Fusṭâṭ,**" and was founded soon after the capture of the Fortress of Babylon, which fell into the hands of the Arabs on April 9th, **641**, by **'Amr ibn al-'Aṣî,** the commander-in-chief of the Khalîfah 'Omar. As to the meaning of the name Al-Fusṭâṭ there has been considerable discussion; there is no reason for doubting that Fusṭâṭ is connected with the Roman "fossatum," and the Byzantine Greek *φοσσᾶτον*, and that Dozy in 1881 was correct * in assigning the meanings of "camp, "campement, pavillon" to the Arabic form, فسطاط, *fusṭâṭ*. On the other hand the Arabs, who probably learned the word from the Romans in the fortress of Babylon, regarded the tent of 'Amr as the embodiment of their force, and it became to them Al-Fusṭâṭ. That this was so is proved by the story quoted by Mr. Stanley Lane-Poole (*The Middle Ages*, p. 17) to the effect that when 'Amr marched north to take Alexandria, his tent had been left standing, because he would not suffer his servants to disturb the doves which were building their nest there. "When on the return from the conquest of "Alexandria the army set about building quarters for them- "selves, 'Amr bade them settle around his still standing tent, and "the first Arab city of Egypt was ever afterwards known as "el-Fust'at, 'the Tent,' or **Misr-el-Fust'at,** or simply "**Misr.**" †

The site upon which Fusṭâṭ was built was at that time "waste land and sown fields," which extended from the Nile to the Muḳaṭṭam hills, and there were no buildings there except the "**Castle of the Candle**" (Ḳaṣr ash-Shama) and **Al-Mu'allaḳah,** and there the Roman governor who ruled Egypt for the Cæsars stayed when he came from Alexandria. This tract of ground was divided into three parts, each of which was allotted to a certain number of Arab tribes; in the middle of it stood 'Amr's house, and opposite to it was built his mosque. In 751 there was added to this a suburb on the north-east which was called **Al-'Askar,** *i.e.*, "the Cantonments," and to this place the 'Abbâsids removed the government offices. A new palace and mosque and barracks were soon erected, and the wealthier members of the community followed the example of their ruler, and built themselves spacious houses in that quarter; one of the governors, called Hâtim, in 810 built a

* *Supplément aux Dictionnaires Arabes*, Tom. II, Leyden, 1881, p. 266.
† Stanley Lane-Poole, *Cairo*, p. 40.

summer palace on a spur of the Muḳaṭṭam hills, where the Citadel now stands, "and thither the emirs of Egypt often "resorted to enjoy the cool breeze." In 870 **Aḥmad ibn Ṭûlûn** founded a royal suburb to the north-east of the Cantonments, which he called **Al-Ḳaṭâ'i,** or "**the Wards,**" because each class or nationality had a special quarter assigned to it. A new palace, with a large garden, etc., was built, and government offices were made to the south of Ibn Ṭûlûn's mosque. The palace was supplied with water from a spring in the southern desert by means of an aqueduct. Ibn Ṭûlûn's son **Khumârûyah** enlarged the palace, and made a garden wherein he planted rare and exquisite roses. In the palace he set up colossal wooden statues of himself and his wives, and "they were painted " and dressed to the life with gold crowns and jewelled ears " and turbans." *

In **905** "the Wards" were destroyed by the 'Abbâsid general, **Muḥammad ibn Sulêmân,** and by 1070 both "the Wards" and "the Cantonments" had become such scenes of ruin that a wall was built all the way from the "new palace of Ḳâhirah " to Fusṭâṭ . . . in order that the caliph when he rode out " might not be distressed by the sight of the dead cities." In **969 Gawhar,** the commander-in-chief of the Khalîfah Mu'izz, took possession of Fusṭâṭ, and on the night of the 5th of August laid the foundations of a new city which he intended his master to occupy. He marked out the boundaries of it on the sandy waste which stretched north-east of Fusṭâṭ on the road to Heliopolis, and a square about a mile each way was pegged out with poles. Each pole was joined with a rope on which bells were hung, and it was arranged that when the astrologers gave the signal that a propitious moment had arrived the first sods were to be turned. Whilst the artisans were awaiting this signal a raven perched on one of the ropes and set the bells ringing, when straightway every workman thrust his spade into the ground and began to dig. At the moment they did so the planet Mars, **Al-Ḳâhir,** was in the ascendant, which was held to be a bad omen, but the matter could not be altered, and the new city was called after the

* "In front of the palace he laid out a lake of quicksilver by the advice " of his physician, who recommended it as a cure for his lord's insomnia. " It was 50 cubits each way, and cost immense sums. Here the prince " lay on an air bed, linked by silk cords to silver columns on the margin, " and as he rocked and courted sleep his blue-eyed lion Zureyk faithfully " guarded his master."—Poole, *Cairo*, p. 87.

Arabic name of Mars, "**Kâhirah,**" *i.e.*, "the Victorious," hence the modern **Cairo.** As 'Amr, the founder of Fusṭâṭ, built a mosque, so Gawhar, the founder of Cairo, built a mosque, **Al-Azhar,** which is one of the chief ornaments of Cairo.

In **973 the Khalîfah Mu'izz,** preceded by the coffins of his ancestors, made an entry into the city which Gawhar had built for him, and preached the Friday sermon in Al-Azhar mosque. Cairo, however, was not intended for the public of the capital, and its exclusive character is indicated by the appellation "Al-Mahrûsah," *i.e.*, "the guarded," which is sometimes attached to the name of the city. The original walls were built of bricks 2 feet long and 1 foot 3 inches wide, and the walls were so thick that two horsemen could ride abreast on them. In 1087 a new wall was built round Cairo, and the three great stone **gates, Bâb An-Naṣr, Bâb Al-Futûḥ, and Bâb Zuwêlah,** were removed and built within the new wall; the three gates are said to have been the work of three brothers from Edessa, each of whom built one. This work was carried out by Badr Al-Gamâlî in the reign of **Mustanṣir.** In the reign of Yûsuf, son of Ayyûb, commonly known as Ṣalâḥ ad-Dîn, or "**Saladin,**" the famous **Citadel** of Cairo was founded; it took 30 years to build, and was not finished until the reign of Kâmil, his nephew. Most of the stone used in the construction of the Citadel came from the smaller pyramids at Gîzah. Saladin built the famous dyke at Gîzah, and he founded a number of colleges both in Cairo and Alexandria. On **January 22nd, 1517,** the Egyptian army was defeated outside Cairo, and on the following day Salîm, Sulṭân of Turkey, was publicly prayed for in all the mosques of Cairo; thus Egypt became a province of the Turkish Empire, with **Cairo for its capital.**

The history of Cairo from this period to the time of the French Expedition under Napoleon is of little interest, and the chronicles of the governors recognized by Turkey resolve themselves into little more than accounts of intrigues, rebellions, and murders. **On July 21st, 1798, the Battle of the Pyramids** was fought, and Cairo then became the capital of a province of the French Empire. In 1801 the French were obliged to evacuate Egypt by the British, who restored the country to the Turks. In 1881 a rebellion, headed by **Arabi Pâshâ,** broke out in Cairo, and the Khedive, Tawfîḳ Pâshâ, became a prisoner in his palace. On September 13th, 1882, the forces of Arabi were defeated, he himself

fled, and on the following afternoon **General Drury-Lowe rode into Cairo.** The garrison of Cairo was in two parts ; one part, containing from 6,000 to 7,000 men, was at 'Abbâsîyah, and the other, which contained from 3,000 to 4,000 men, was in the Citadel ; the 'Abbâsîyah men surrendered unconditionally on demand, and Captain Watson, R.E., was sent on to demand a surrender of the Citadel. When he arrived at the Citadel, the Egyptian officer at once agreed to surrender, the small British force entered the gate, and the 4,000 Egyptians quickly piled their arms and marched down to Ḳaṣr An-Nîl Barracks. Two hours later the Muḳaṭṭam garrison above the Citadel surrendered, and Cairo thus passed into the charge of the British.

The city of Cairo, which is now understood to include Al-Fusṭâṭ, as well as the later Ḳâhirah, and the European quarter, contained in 1917 a population of 790,939 (men 405,848, women 385,091) — Muslims 631,163 ; Orthodox 86,653, Catholics 35,967, Protestants 5,579, miscellaneous 789, total of Christians 128,988 ; Jews 29,207 ; literate 167,619, illiterate 496,573 ; blind in one eye 19,931, in both eyes 10,516. The site now occupied by Al-Fusṭâṭ and the Cairos which have already been mentioned has probably been inhabited for several thousands of years, for although Heliopolis stood so near it, the needs of the riverside population must have made a riverside town absolutely necessary. The geography of the Delta in ancient Egyptian times does not permit any definite statement to be made about the town which must have existed near the old fortress of Babylon, but we know that when the Nubian king, Piānkhi, passed in his victorious progress from Memphis to Heliopolis he entered a town called Kher-āḥa [hieroglyphs] ; this town was on the eastern bank of the Nile, and was near Heliopolis, and here the king poured out a libation to Temu, the Sun-god of the evening. Kher-āḥa is often mentioned in religious and mythological texts, and one very ancient legend preserved in the *Book of the Dead* indicates that the town was associated in the history of Osiris with the overthrow of the foes of the god. Be that as it may, there is good reason for supposing that Kher-āḥa was the ancient counterpart of a portion of the modern Cairo.

Cairo is about 90 miles from Isma'îlîyah, 130 from Alexandria, about 160 from the Rosetta mouth of the Nile, about 14 from the forking of the Nile, 450 from Luxor, 583 from Aswân, 802

from Wâdî Ḥalfah, 1,042 from Abû Hamad by rail (1,396 by river), 1,752 from Kharṭûm, and 3,312 from the Ripon Falls.

Tramways.—The traveller in Cairo will find the tramways very convenient, for by means of them he will be able to visit many of the outlying parts of the city quickly and cheaply. The cars have been greatly improved in recent years, and on the newer lines, *e.g.*, those on the line to the new suburb of Heliopolis, a considerable speed is attained. Carefully fitting windows exclude the dust, and in the matter of blinds and seats the cars leave little to be desired. In visiting the Citadel, Bûlâk, Old Cairo, etc., many interesting sights connected with the daily life of the people may be witnessed. The tramway centre is 'Atabah al-Khadrah, and trams run at frequent intervals to Shûbrah, Rôd al-Farag, 'Abbâsîyah, Bûlâḳ, Zapṭîyah, Sayyidah Zênâb, the Citadel, Old Cairo, Rôḍah Island, Gîzah, and Heliopolis. A tram line connects Ḳaṣr an-Nil Bridge with the Pyramids, and there is a half-hourly service. About the time of full moon for three nights each month the service to and from Gîzah is extended one hour.

Until the year 1883 Cairo could be regarded as a very fair specimen of a large Oriental city, where Eastern life and character could be studied with delightful ease; and since its inhabitants had for about 80 years been accustomed to the sight of Europeans of all kinds, intercourse with them had lost, outwardly at least, much of the intolerance and fanaticism which characterize those of Damascus and Baghdad. Ismâ'îl's ailways and telegraphs and other inventions of the Frangî or European had shown them that the "magic" of the West was more powerful, if not better, than their own, and the traditions of the early years of the nineteenth century had taught them that French and British soldiers were good fighting men. There was a widespread belief that British influence in Egypt tended towards freedom and security of life and property, and their experience taught them that they would act wisely in submitting to British discipline. This belief has resulted in a rapid development of the city, and in no place is this more apparent than Cairo, for in 40 years the capital has been transformed from a picturesque but dirty Oriental town into a well-kept, well-paved, and well-lighted city, in which most of the conveniences of life and means of locomotion have been introduced. The main roads of the city have been macadamized, the side walks have been paved, the alleys in the bazaars have been asphalted, and the scavenging in most modern parts

of the city is effectively performed. The old oil and gas lamps have been replaced by electric arc and incandescent gas lamps, the streets have been named, and the traffic is regulated by the police with considerable skill. The handsome new buildings which are springing up in all neighbourhoods testify to the security which capital now enjoys, and the growth of the city proves that its people are prosperous. The mixture of Eastern and Western civilization which is found in many parts of Cairo is very attractive, and there are still quarters in it where, if properly introduced to native Egyptian gentlemen, the traveller will find families living among mediæval surroundings, and men and women yet clinging with true Oriental conservatism to many of the manners and customs and forms of belief which their ancestors observed 1,000 years ago.

The stranger who is interested in the religious and educational agencies which are actively at work in Cairo may, with advantage, pay a visit to the **American Mission**, the headquarters of which are situated close to Shepheard's Hotel. The first attempt made in modern times to introduce the Gospel to the Egyptians was that of the Moravians, who, in 1752, at the instigation of Count Zinzendorf, despatched Dr. Hooker to Cairo. He was followed by Pilder, Cassart, Antes, Herman, Roller, and others. After 50 years' desultory labour the Moravians abandoned Egypt, leaving no trace of their work behind them. They failed because they tried to live as the natives lived, and on native food. The second attempt was made by the Church Missionary Society, which began its labours in 1819, and has continued them to the present day. The American Mission was founded in 1854 and profiting by the experience of their predecessors in Egypt, its missionaries started their work on a system which has produced the most remarkable results. From first to last they have devoted themselves to the people they came to help, and have built churches, schools, hospitals, etc., paying heed to their physical well-being and education as well as to the needs of their souls. The men who have guided the policy of the Mission have been shrewd as well as capable administrators, and their self-sacrifice and tenacity of purpose, to say nothing of their religious zeal, are attested by the survival of their institutions, which are to be found, in some form or other, in all the important towns of Egypt. Their rule demanded from each missionary ten-year periods of unbroken residence in Egypt, as long as health permitted, and this has given their work a

continuity and permanence of an unusual character. They have worked with great success among the Copts, and this community owes the American Mission a debt which is well-nigh incalculable. The number of men who were appointed to the Mission in Egypt between July 14th, 1843, and January 1st, 1908, was 136; of these 63 have retired or died. They had 10 districts, 70 organized congregations, 192 places of worship, and a total membership of 10,717. Their whole Christian community numbered 40,000. Their schools were 181 with 17,530 students and 661 native workers. The native contributions for church work amounted in 1910 to $50,155, and the natives paid for all purposes $178,719. Of the pupils in the schools 3,742 were Protestants, 9,053 Copts, 3,685 Muslims, and 1,050 miscellaneous; in nationality 16,530 were Egyptians. The Bibles, Books of the Bible, educational books, etc., sold or distributed in 1910 were in number 94,111; receipts from those sold amounted to $13,926.

1. The Museum of Egyptian Antiquities.

N.B.—The Museum is **closed** during Bairam and Ḳurbân Bairam, and on other official holidays.

Hours of Opening: May 1st to October 31st, 8.30 a.m. to 1 p.m.
November 1st to April 30th, 9 a.m. to 4.30 p.m.

Entrance Fees: In Summer, 1 piastre, excepting on Mondays, when it is free.
In Winter, 5 piastres.
Soldiers pay half a piastre in summer, and 2 piastres in the winter.

The nucleus of the great Khedivial collection of ancient Egyptian antiquities of all periods, from about 4400 B.C. to the end of the Roman rule in Egypt, was formed by the eminent Frenchman, F. Auguste Ferdinand **Mariette**, a distinguished scholar and archæologist, and an unselfish and indefatigable worker in the cause of Egyptological science. In the course of his excavations at Ṣaḳḳârah, where he discovered the Serapeum, he brought together a large number of miscellaneous antiquities, which were stored wherever a place could be found to hold them. In the teeth of opposition made by the notables of Cairo and Ministers of the Government, he forced

the claims of archæology under the notice of the Khedive **Sa'îd Pâshâ,** who, soon after his succession in 1854, ordered that a Museum of Egyptian Antiquities should be founded, and appointed Mariette as its first Keeper. With the important work of the Suez Canal in hand, it was unlikely that the Egyptian Government would vote money for the building of a museum to hold the monumental remains of a nation of "ignorant unbelievers," whom every Egyptian believed God had wiped off the face of the earth because of their "unclean wickedness," and Mariette had therefore to take any empty rooms in any Government building which could be found in which to house his collection.

After much difficulty Mariette induced the authorities to transfer to him portions of the old post-office at Bûlâḳ, the port of Cairo, and in these the first Khedivial collection of Egyptian antiquities was placed. It goes without saying that the building was unsuitable in every way, for the floors were bad, the walls were too thin, the rooms were small, and the most inexperienced thief could easily break in and help himself to the smaller objects which were placed in the wretched receptacles which served as exhibition cases. It was found in a very short time that the collection was growing too rapidly for the space which Mariette had at his disposal, and, when all the rooms were filled, he was obliged to store the cases of antiquities in an outhouse or shed near, and to leave them packed up. Whilst the work of collecting was thus going on, Mariette devoted himself to the excavation and clearing out of temples and other buildings in all parts of the country. In 1881 the great collection of royal mummies from Dêr al-Baḥarî arrived, and the interest of these was so great that the cultured opinion of the civilized world demanded that some systematic arrangement of the contents of the Bûlâḳ Museum should be made, and that steps should be taken for their better preservation, for it was found that the damp in the old post-office was doing harm to the more fragile of the antiquities. The situation of the museum itself was alarming. On the one side flowed the Nile, which more than once threatened to sweep the whole building away, and the waters of which, on one occasion, actually entered the courtyard, and on the other were a number of warehouses of the flimsiest construction, filled with inflammable stores, which might at any moment catch fire and burn down the museum. Early in winter mornings the building was often full of the white, clinging,

drenching mist, which is common along the banks of the river, and it was no rare thing to see water trickling down inside the glass cases which held the mummies of the great kings of Egypt.

At length the Egyptian Government was compelled to consider seriously the problem of housing the monuments of the Pharaohs, but the authorities were hampered by want of funds; finally, after much discussion, it was decided to transfer the whole collection to the Palace of Gîzah, which stands on the left bank of the Nile, just opposite the Island of Rôḍah. This palace was built by Isma'îl Pâshâ to accommodate his *ḥarîm*, and cost between 4¾ and 5 millions of pounds sterling! The fabric itself was not strong for a building of the kind, and the walls of hundreds of its rooms were made of lath and plaster gilded and painted; the outcry usually raised by irresponsible persons against any proposal connected with antiquities was made, but, under the circumstances, the Government did the right thing. It fell to the duty of Sir Francis (now Lord) Grenfell, K.C.B., to make arrangements for the prevention of fire, and with the precautions taken by him, and the rules which he enforced in person, the collection became comparatively safe.

The removal of the antiquities from Bûlâḳ to Gîzah was carried out in 1889. In 1895 the Public Debt Commissioners voted the sum of £E.110,000 for the building of a new fireproof museum, and the design of M. Dourgnon, a Parisian architect, was selected by the jury, which consisted of an Englishman, a Frenchman, and an Italian. The building was offered for tender in 1896, the foundations were laid in 1897, and the museum was finished towards the close of 1901; up to the end of 1900 the total cost had been £E.169,000. The total cost of the museum has been £E.251,000, and already £E.50,000 has been spent on the catalogue. The transfer of the antiquities from Gîzah to the new museum began on December 3rd, 1901, and was completed on July 13th, 1902. The inauguration ceremonies were performed in the presence of Lord Cromer, Lord Kitchener, and about 100 of the nobles and notables of Cairo on November 15th following.

As already said, the first Keeper of the Egyptian Museum in Cairo was **F. A. F. Mariette,** who was born at Boulogne-sur-Mer on February 11th, 1821, and who died at Cairo in 1881. He was appointed on the staff of the Louvre in 1848; he set out on a mission to Egypt in search of Coptic and Syriac MSS. in 1850; he discovered and excavated the **Serapeum** in 1852,

with a grant of 50,000 francs which had been voted by the French National Assembly; he carried on excavations for the Duc de Luynes at Gîzah in 1853; and in 1854 he was appointed Assistant Curator at the Louvre. In the same year he was appointed Keeper of the Bûlâḳ Museum, and the Khedive Sa'îd Pâshâ made him a Bey. From 1855 to 1871 he worked indefatigably, and the excavations which he carried out comprise some of the greatest works of the kind ever done in Egypt. Tanis, Abydos, Edfû, Karnak, Denderah, Madînat Habû, Dêr al-Baḥarî, and many other sites were more or less thoroughly explored by him; he explored hundreds of maṣṭăbahs in the cemeteries of Gîzah, Ṣaḳḳârah, and Mêdûm, and he opened the "Maṣṭăbat al-Fir'aun." Whilst engaged in such works he found time to write a Guide to the Museum, entitled "Notice des principaux monuments exposés dans les galéries provisoires du Musée d'Antiquités de S. A. le Khédive à Boulaq," which went through several editions; he edited facsimiles of papyri, and published several volumes of valuable Egyptian texts. The zeal and enthusiasm of Mariette contributed largely to the advance of Egyptological science, and, as a worker on broad, general lines of study, his equal will not quickly be found. He died in 1881, and his body was entombed in a marble sarcophagus which first stood in the courtyard at Bûlâḳ, then was removed to Gîzah in 1889, and to the new Museum in Cairo in 1902. A statue and a monument to Mariette Pâshâ were set up in 1904.

Mariette was succeeded by **Professor Gaston Maspero, K.C.M.G.**, who was born at Paris on June 23rd, 1846. He took the degree of Docteur en Lettres in 1873 at l'École Normale, was made Professor of the Collège de France, in the room of de Rougé, and Member of L'Académie des Inscriptions in 1883, and Oxford conferred upon him the degree of D.C.L. in 1886. As soon as he was appointed he began to arrange and catalogue the antiquities at Bûlâḳ, and for the first time it became possible to obtain an idea of the value and sequence of the objects exhibited. The "Guide du Visiteur au Musée de Boulaq" was a most useful work, for in it Professor Maspero not only described his objects, but explained their use and signification, and his "Guide" was in reality a manual of archæology. In addition to his work in connection with the Museum at Bûlâḳ, Professor Maspero carried out the excavation of Luxor temple in 1884, 1885, and 1886, at the expense of a fund which was raised by the *Journal des Débats;* it has

been customary to ascribe this work to M. Grébaut, but this *savant* only removed from Luxor to Cairo the antiquities which Professor Maspero had found. In 1884 Professor Maspero discovered the necropolis of Akhmîm, from which such excellent results were obtained; he repaired Karnak, and the eastern part of the hypostyle hall; he cleared the Ramesseum at Thebes, and repaired the temples at Abydos; he rebuilt the west part of the girdle wall at Edfû, covered over the sanctuary, and repaired the little temple; and he carried on works of repair and excavation and clearing at Kôm Ombo, Al-Kâb, Aswân, Shêkh ‘Abd al-Ḳûrnah, Asyûṭ, Barshah, Beni Ḥasan, Tall al-‘Amârnah, Ṣaḳḳârah, etc. Professor Maspero was the author of a large number of works, many of them containing editions of most valuable texts, and his *Histoire Ancienne* in three volumes is a monument of learning. One of his greatest works undoubtedly is the edition of the texts that were found in the pyramid tombs of Unȧs, Tetȧ, and other early kings, which he published with translations in French. These documents are of priceless value for the study of the religion of ancient Egypt, and their decipherment and publication are the greatest triumph of Egyptology. They reveal a phase of civilization in Egypt of which there are no other records than these in writing, and certain portions of them must be coeval with the historic culture of Egypt. In 1886, for private reasons, Professor Maspero resigned his appointment as Keeper of the Bûlâḳ Museum, and was succeeded by **M. Grébaut**, the author of an excellent edition of a famous Hymn to Ȧmen-Rā; he increased the collection under his charge considerably, and brought many valuable monuments from all parts of Egypt to the Museum at Gîzah; he discovered a large number of the mummies of priests of Ȧmen, with their coffins, etc., at Dêr al-Baḥarî. Under his rule the Egyptian collection was removed from Bûlâḳ to the Palace of Gîzah.

M. Grébaut was, in turn, succeeded in 1892 by **M. J. Marie de Morgan**, who was born on June 3rd, 1857, at the Château de Bion, Loir-et-Cher; though he studied archæology for more than 20 years, he is a trained mathematician, engineer, and geologist, and he has turned his training to good account, for he has conducted excavations according to scientific methods, with unusually successful results. Since 1897, when he resigned his appointment, he has been engaged in carrying out excavations at Susa and other places in the country which was called

Elam by ancient nations; fortune has favoured his labours, and made him the discoverer of the basalt stele which is inscribed in Babylonian characters with the text of the "Code of Laws" of Khammurabi, king of Babylon, about 2200 B.C. M. de Morgan has travelled over all Persia, Lûristân, Kûrdistân, Armenia, and Mesopotamia, and is the author of numerous learned works. In connection with Egyptology it may be mentioned that he was the discoverer of the pre-dynastic and early archaic tombs at Naḳâdah in Upper Egypt, and it was he who first showed the correct position in the history of Egypt of the people who were erroneously called the New Race.

M. de Morgan was succeeded in 1897 by **M. Victor Loret,** who is the author of *Manuel de la Langue Égyptienne*, Paris, 1891; of *La Flore pharaonique*, Paris, 1892; and of several articles in various publications. In 1898 he discovered in the tomb of Åmen-ḥetep II at Thebes the mummies of several kings of the XVIIIth and later dynasties, and among them was the mummy of Menephthah, the "Pharaoh of the Oppression," whom many believed to have been drowned in the "Red Sea" when the Egyptians were overwhelmed in the days of Moses. In 1899 M. Loret resigned, and **M. Maspero** returned to his former position of Keeper of the Egyptian Museum, and during the second period of his rule he renewed the wise and liberal policy with which all are familiar. Under his guidance the Egyptian collection was removed from the Palace of Gîzah to the new Museum in the European quarter of Cairo, and the interests of Egyptology, both archæological and philological, were well guarded. Those who are interested in watching the progress of archæological works in Egypt under his direction should consult his *Report* for 1904, published in the *Report upon Public Works* for 1904 by Sir William Garstin, Cairo, 1905, his *Les Temples Immergés*, Cairo, 1909–10, etc. Maspero resigned the directorship of the Service of Antiquities in 1914, and died in Paris in 1916. He was succeeded by Monsieur **E. Lacau.** The various Keepers of the Egyptian Museum were for 40 years or more ably seconded in all their endeavours by **Emil Brugsch Pâshâ** (brother of Dr. H. Brugsch, the eminent Egyptologist), the Conservator of the Museum, to whom the arrangement and classification of the antiquities therein were chiefly due. He left Egypt soon after the outbreak of the War in 1914. The Assistant-Conservators are **M. G Daressy** and **Aḥmad Kamâl Bey**, etc.

Tickets for inspecting the temples, price 120 piastres, may be purchased here. Formerly Messrs. Thos. Cook & Son printed in their "Guide to Egypt" and in "Nile Notes" a summary of the contents of the rooms of the Egyptian Museum, but as M. Maspero issued a "Guide to the Cairo Museum," they have decided to omit such summary here.

The Egyptian Collection in Cairo is the richest in the world in monuments of the **first six dynasties**, but in some classes of antiquities its collections are poor. No visitor should omit to see :—

1. The **painted maṣṭăbah doors and statues of dynasties IV-VI.**
2. The **Shêkh al-Balad.**
3. The **Inscriptions of Unȧ** and **Ḥer-Khuf.**
4. The **Statues of Mycerinus and Khephren.**
5. The **Tomb of Ḥeru-ḥetep.**
6. The **Sphinxes** and monuments **from Tanis.**
7. The **Stelæ of Piānkhi** and other Nubian Kings from Gabal Barkal.
8. The **Statue of Ȧmenȧrṭas.**
9. The **Tablet of Ṣaḳḳârah.**
10. The **Stele of Pithom.**
11. The **Stele of Canopus.**
12. The **Tall al-'Amârnah Tablets.**
13. The **Royal Mummies** from Dêr al-Baḥarî.
14. The papyrus containing the **Maxims of Ani.**
15. The **Fayyûm Papyrus.**
16. The **Dahshûr and Lahûn jewellery.**
17. The **jewellery of Ȧāḥ-ḥetep.**
18. The green **slate shield of Nārmer** and the other pre-dynastic antiquities.
19. The **leather body of the chariot** of Thothmes IV.
20. Typical examples of all the painted coffins.
21. The "find" of **statues made at Karnak by M. George Legrain.**
22. The **contents of the tomb of Iuȧa and Thuȧa**, the father and mother of Queen Ti, discovered by Mr. Theodore M. Davis in 1905.
23. The **Cow of Hathor**, discovered by **Prof. Naville at Dêr al-Baḥarî** in 1906.
24. The antiquities from Thebes, excavated by the Right Hon. the Earl of Carnarvon.

25. The contents of the Hyksos graves, discovered by Dr. Reisner at Karmah in 1912-1916.
26. The contents of the pyramids of Nûrî and Kurrû at Napata in the Egyptian Sûdân, excavated by Dr. Reisner, 1916-1919.
27. The wonderful collection of wooden models of houses and other buildings, gardens, men engaged in handicrafts, weaving, etc., which were found by Mr. Winlock in a hill behind Ḳûrnah at Western Thebes in 1920.

2. The Museum of Arab Art.

Hours of Opening :—

November 1st to April 30th, 9 a.m. to 4 p.m.; **Entrance Fee,** 5 piastres.

May 1st to October 31st, 8 a.m. to 1 p.m.; **Entrance Fee,** 1 piastre.

This Museum is closed on Fridays and holidays.

The collections which illustrate Arab art are arranged in a building close to the Mosque of Al-Ḥâkim, and are well worth a visit. The foundation of a museum of this kind was ordered by Ismâ'îl Pâshâ in 1869, who commissioned Franz Pâshâ to make collections of all objects which illustrated the development of Arab art; these were arranged in the arcades of the Lîwân of the Mosque of Al-Ḥâkim. Nothing, however, was done in the way of providing a special location for the collections until 1881, when the Government decided to build a museum; the courtyard of the mosque was selected as the site, and a museum was built there in 1883. In 1892 Herz Bey was appointed Keeper of the collections. As soon as it became understood that a special building had been erected for works of Arab art the collections increased with great rapidity, and it was decided by the Government to provide more accommodation for them on a site in the Mîdân Bâb al-Khalḳ, together with new rooms for the Sulṭânîyah Library. The new Museum was finished in 1903, and Herz Bey removed his collections into it in the same year. The traveller is referred to his excellent "Catalogue Sommaire," published in Cairo in 1894, for detailed descriptions of the splendid Arab glass lamps and the other objects worth examination, which are under his care. The lower portion of the building has been devoted to the housing of the Sulṭânîyah Library which was founded by Isma'îl Pâshâ, and is said to contain about 50,000 manuscripts and books in Arabic, Persian, Turkish, and other Oriental languages.

The Sulṭânîyah Library.

Hours of Opening:—

October 1st to June 30th, 8 a.m. to one hour before sunset.
July, August, September, 8 a.m. to 1 p.m.
In Ramaḍân, 10 a.m. to 2 p.m.

The Library is open daily, Fridays and holidays excepted. **Admission** to the Reading Room and Exhibition Room is **free.** The Library receives an annual grant of £E.4,000 from the Government, and £E.500 from the Wakfs Administration. The first Librarian was the eminent Arabic scholar, Dr. Stern, who was succeeded by Dr. Spitta Bey, the author of several works on modern Egyptian Arabic, and he was in turn succeeded by Dr. Vollers and Dr. Moritz. The present Librarian is Aḥmad Ṣâdiḳ Bey. The total cost of the new Museum and the fittings for the Library has been £E.66,000, and it is characteristic of the feelings entertained among natives in respect of the ancient monuments of the country, that this expenditure has been the subject of much animadversion and criticism in native quarters. At the end of 1918 the number of volumes in the Library was 92,000 (European 52,000 and Oriental 40,000); number of students, 19,000; visitors to the exhibition rooms, 55,000. Books borrowed for home reading 14,000. The **Government Press** is installed in the Library, and it has published since 1914 about 20 volumes of great works in the Arabic language.

3. The Zoological Gardens.

These Gardens were established in 1891, and enlarged in 1898 and 1903; they cost £E.7,400, and their upkeep costs about £E.4,000 a year. The area of the Gardens is about 52 acres. The Gardens are open daily.

Entrance Fees:—

Week-days, ½ piastre each person.
Sundays, 5 piastres each person.
On the day Sham an-Nassim, 10 piastres each person.

Under the capable management of the Director, Captain Stanley Flower, the Gardens are becoming a most pleasant place of recreation, and a valuable means of education in all that appertains to the birds, animals, etc., of North-east Africa.

4. The Aquarium at Gazîrah.

An Aquarium was established at Gazîrah in November, 1902, at a cost of £E.1,150, and placed under the direction of Captain Flower. It contains a number of varieties of Nile fish, which have never before been kept in captivity. The gardens are beautiful, and are well worth visiting.

Hours of Opening:—Daily, from 8.30 a.m. to 5 p.m.

Entrance Fees:—One half-piastre on week-days, and one piastre on Sundays.

5. The Mosques of Cairo.

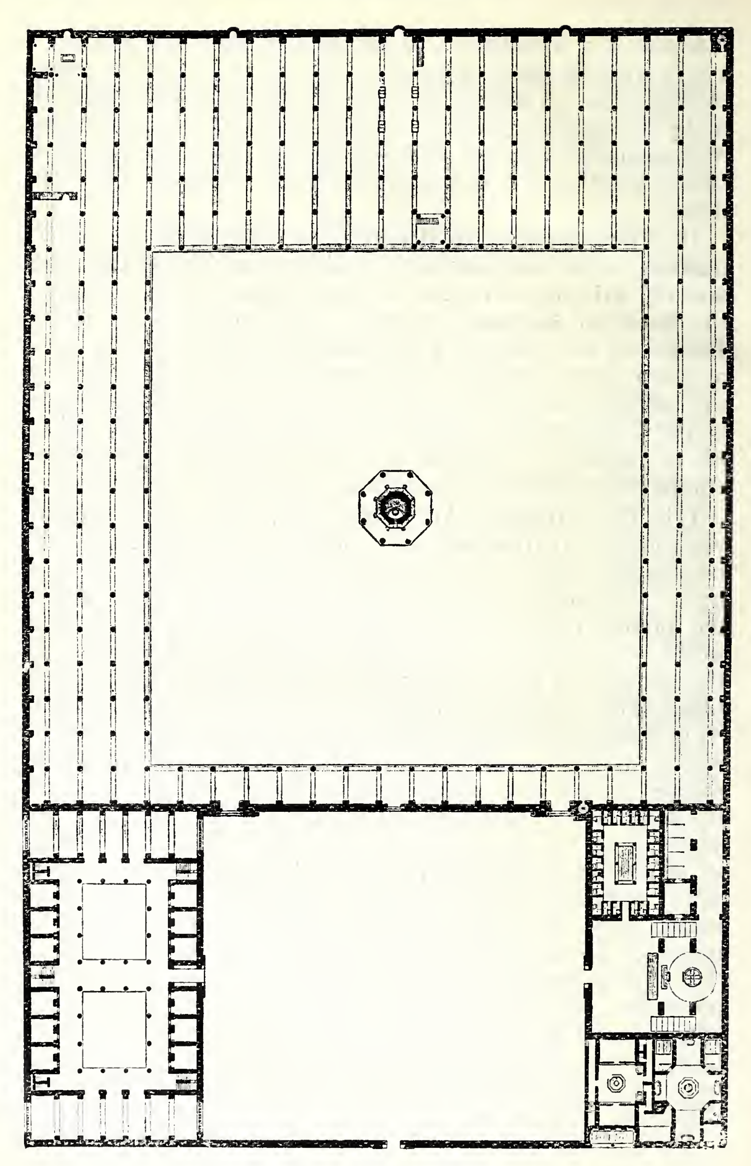
I. The **Mosque of 'Amr** was built A.D. 643, by **'Amr ibn al-'Aṣî,** the conqueror of Egypt, but hardly a trace of the original building now remains in it. The "Mosque of Conquests," or the "Crown of Mosques," as 'Amr's Mosque was called, was originally a plain "oblong room about 200 feet long by 56 feet "wide, built of rough brick, unplastered, with a low roof, sup-"ported probably by a few columns, with holes for light. "There was no minaret, no niche for prayer, no decoration, "no pavement. Even the pulpit which 'Amr set up was "removed when the Caliph wrote, in reproach, 'Is it not "'enough for thee to stand whilst the Muslims sit at thy "feet?'" The mosque was enlarged in 673 by taking in a part of 'Amr's house, and a raised station was made at each corner for the Mueddin to cry the call to prayer. The whole building was pulled down in 698 and rebuilt on a much larger scale, but "what we see to-day is practically the mosque "built in 827 by 'Abd-Allah ibn Tâhir, and restored by "Murâd Bey in 1798, just before he engaged the French in "the 'Battle of the Pyramids' at Embâba." The columns of the mosque were originally 366 in number, but of many only the bases now remain; in the north-east corner is the grave of 'Amr's son, 'Abd-Allah. The court measures 400 feet by 350 feet. This mosque, though not attractive, is held in the highest veneration by Muḥammadans, and Mr. Lane tells us that they believe God will answer with special favour the prayers which are made there. In consequence of this, devout and learned men pray there for a "good Nile," and sometimes for rain, and it is recorded that on one day during a period of prolonged drought (1825–1828), Muslims, Christians, and Jews went there and all together prayed for rain. On the

following day it rained.* At the present time the mosque is a very favourite place of prayer on the last Friday of the month of Ramaḍân. A legend says that one of the pillars was made to fly through the air from Mecca to Cairo by a blow from Muḥammad's whip, and that two of the pillars are placed so closely together that only a true believer can squeeze between them.

II. The **Mosque of Ḥusên** is a comparatively modern building, which was erected to enshrine the **head of Ḥusên, son of 'Ali,** the son-in-law of the Prophet; he was slain at the Battle of Karbala, A.D. 680. The head was first sent to Damascus, and then to Cairo, and was preserved in a chest of silver which is buried underground. Ibn Jubêr says that the mosque contained a black stone in which the whole person of the beholder was reflected as "in an Indian steel mirror newly polished," and that he saw the people kissing and embracing the tomb in transports of devotion and affection.

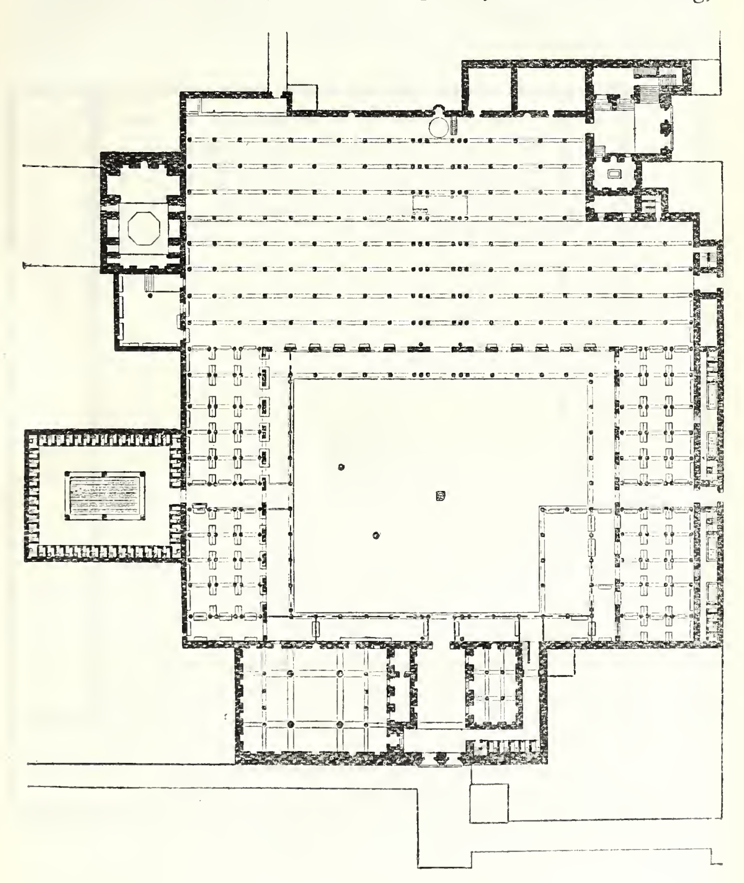
III. The **Mosque Al-Azhar,** *i.e.*, "the Resplendent," was founded by **Gawhar,** the general of the Fâṭimid Khalîfah, on Sunday, April 3rd, 970, and it was finished on June 24th, 972. The mosque was turned into a university in 988, and at the present time it is the largest university in the Muslim world. Very little of the original building now remains, for the restorations which have been made in ancient and modern times have been very considerable; in the nineteenth century Sa'îd Pâshâ and Tawfîḳ Pâshâ carried out some most important works of repair. The mosque has six gates, but is usually entered through the "Gate of the Barbers." On three sides of the court are compartments, each of which is reserved for the students or worshippers of a certain country. The Lîwân, or Sanctuary, contains nine rows of pillars, four of which were contributed by a noble called 'Abd Ar-Raḥmân, whose tomb is in the building. In the compartments, or porticoes, already referred to, students from every region of the Muslim world are taught the various subjects which the professors, over 200 in number, consider necessary for the education of Muḥammadans. The Ḳur'ân is, of course, to them the fountain of all science, learning, and wisdom, and next come the commentaries on it, and exegetical works; the "profane" subjects taught are those which the Muslims studied in the Middle Ages, and all modern learning and knowledge

* Lane, *Cairo Fifty Years Ago*, p. 142; Lane-Poole, *Cairo*, p. 44.



Plan of the Mosque of ‘Amr.

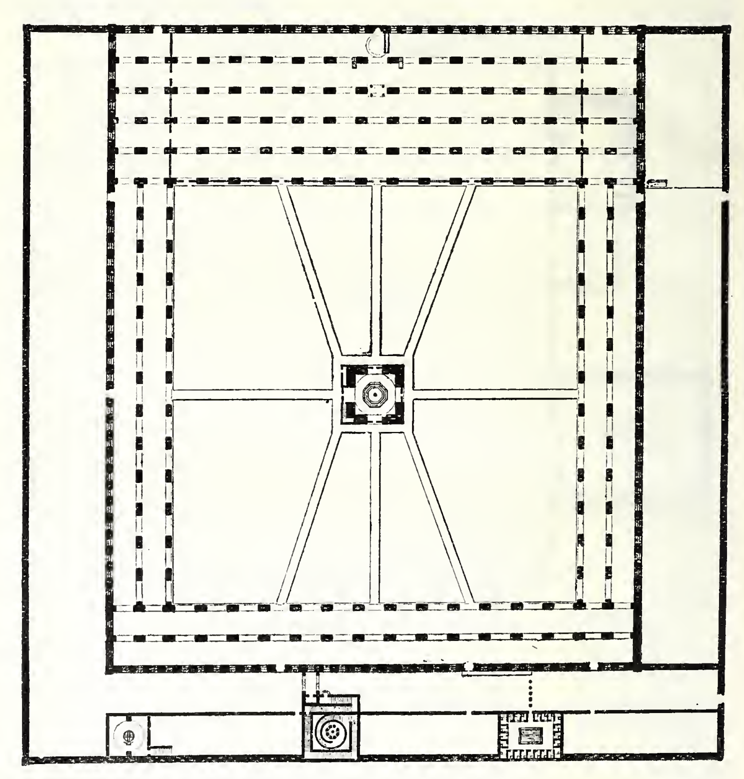
are treated as if they did not exist. The number of students is variously given from 9,000 to 10,000, and, to the credit of the Muslims be it said, no student is obliged to pay a piastre for his instruction. The professors frequently teach for nothing,



Plan of the Mosque Al-Azhar.

and needy students from remote countries are often boarded and lodged gratuitously. It is said that the number of students is diminishing, and that British influence and institutions in Egypt are producing a perceptible effect.

IV. The **Mosque of Ibn Ṭûlûn** was founded by **Aḥmad ibn Ṭûlûn** in 876, and the building was finished in 879, and prayers were said in it that year. It is, as Mr. Lane-Poole says, the most interesting monument of Muḥammadan Egypt, and forms a landmark in the history of architecture; it is the oldest mosque, except that of 'Amr, in Cairo, and it is the



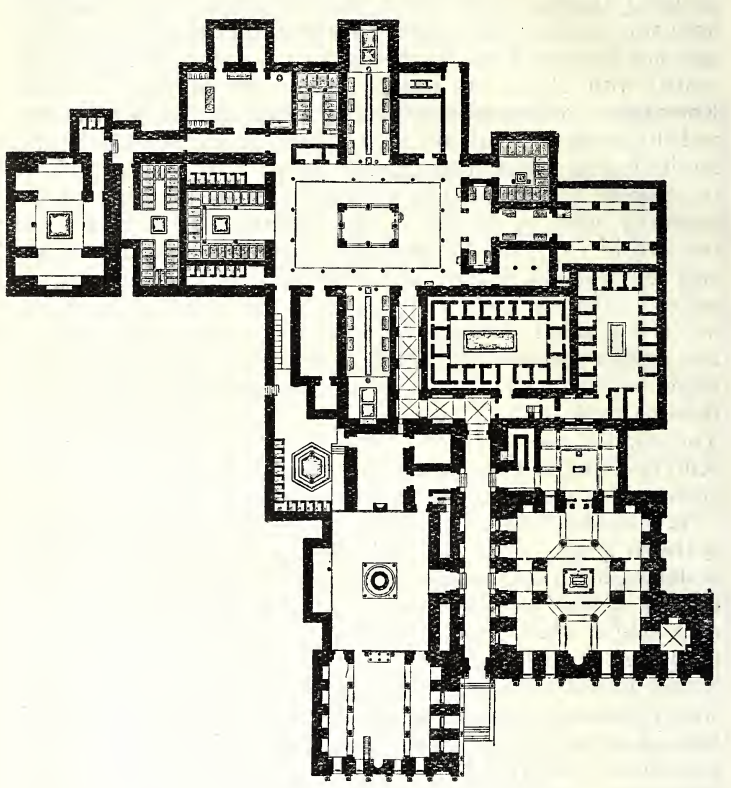
Plan of the Mosque of Ibn Ṭûlûn.

earliest instance of the use of the pointed arch throughout a building, earlier by about two centuries than any in England. The site was chosen by Aḥmad on the hill of Yashkûr, on the spot where God was supposed to have held converse with Moses. It is said that the plan was made by a Copt, who showed Ahmad how to build the

mosque without columns, and suggested that brick pillars and arches would last longer than marble; the total cost of the building is said to have been 120,000 dînârs, or about £63,000. The open court measures about 300 feet from side to side; three sides have two rows of pillars, but the east side has four rows (originally *five*). Arches and piers are coated with plaster, in which designs are worked by hand. Round the arches and windows are a knop-and-flower pattern and the arcades are roofed with planks of sycamore, which, a tradition says, came from Noah's Ark. The general form of the mosque is similar to that of 'Amr restored; the great square covers 3 acres of ground. The **Lîwân**, or Sanctuary, was repaired in 1077, and the **mihrâb**, or niche, was built in 1094, and the Mamlûk Sulṭân Lagîn restored it in 1296, and gave a pulpit to the building. The mosque has a tower, outside of which is a spiral staircase, but in the true sense of the term it has neither minaret nor dome. A similar spiral stairway is found on the mosque-tower called **Malwîyah** at Sâmarrâ, on the east bank of the Tigris about 60 miles north of Baghdâd. The cupola over the niche was the work of Lagîn. The Kûfî inscriptions in wood are a purely Arab addition, and the geometric ornament of the open grilles is Byzantine.

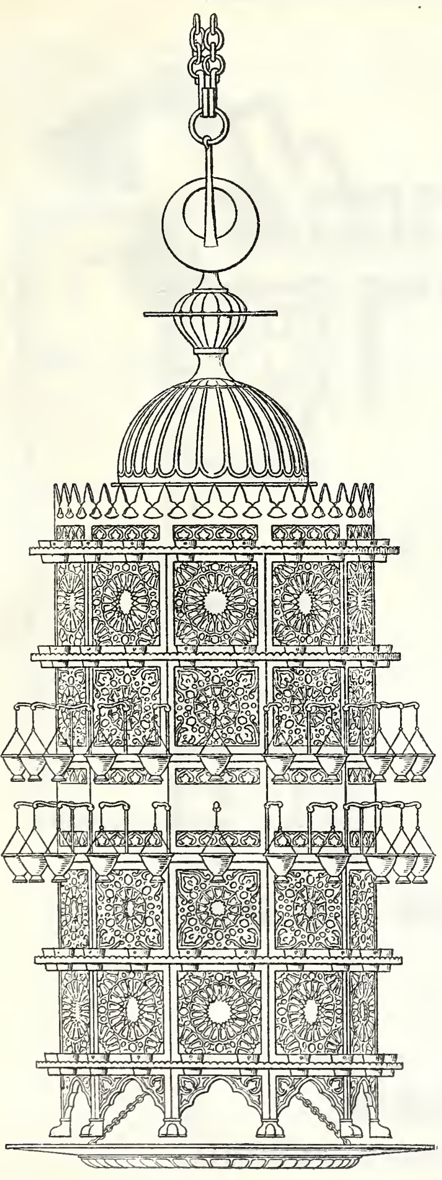
V. The **Mûristân Ḳalâûn** was built by the Mamlûk **Sultân Ḳalâûn** about **1285**, and was intended to serve as a hospital; it stands, in a ruined state, near his mosque and tomb in the quarter of the metalworkers. It contained two courts, on each side of which were small rooms wherein diseases of every kind were treated, and at the sides of another quadrangle were lecture rooms, baths, a library, dispensary, and every appliance which the science of the day could suggest. The only qualification for admission was to be sick, and medical treatment was gratuitous, and readers of the Ḳur'ân and musicians were attached to the hospital. In a school close by 60 orphans were kept and educated at the expense of the institution. The building which contains the **Tomb of Ḳalâûn** is well worth a visit, and its mosaics and other ornamentations are very good. Here also are exhibited the clothes which Ḳalâûn wore, and sick Muslims believe that if they touch them they will be cured of their illnesses. The Mûristân was finished by Ḳalâûn's son, An-Nâṣir, whose tomb is near his father's. Ḳalâûn decided to build the Mûristân after a serious illness which came upon him, and we can understand his care for the poor when we remember that his son An-Nâṣir had a cataract in one eye and

was lame in one foot. Close by is a building of the Sulṭân Barḳûḳ, erected in 1384, in which one of his daughters is buried.



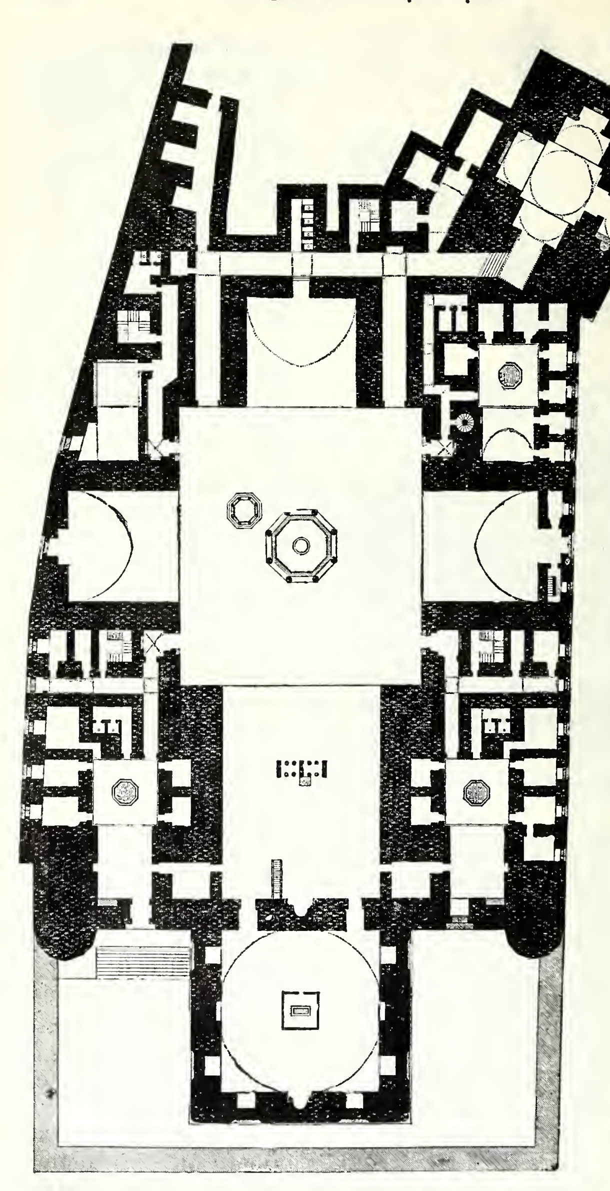
Plan of the Mûristân and Mosque of Ḳalâûn.

VI. The **Mosque of Ḥasan** was built by the Sulṭân of this name, who reigned from **1347 to 1351**, was deposed for three years, and then reigned from 1354 to 1361. It was built between 1356 and 1359, and the expenses connected with it are said to have been 1,000 dînârs a day. A legend says that when the work was done, Ḥasan had the architect's hand cut off to prevent him from making a duplicate of the building. The mosque is in the form of a cross, and consists of a central court and four deep transepts. The walls are



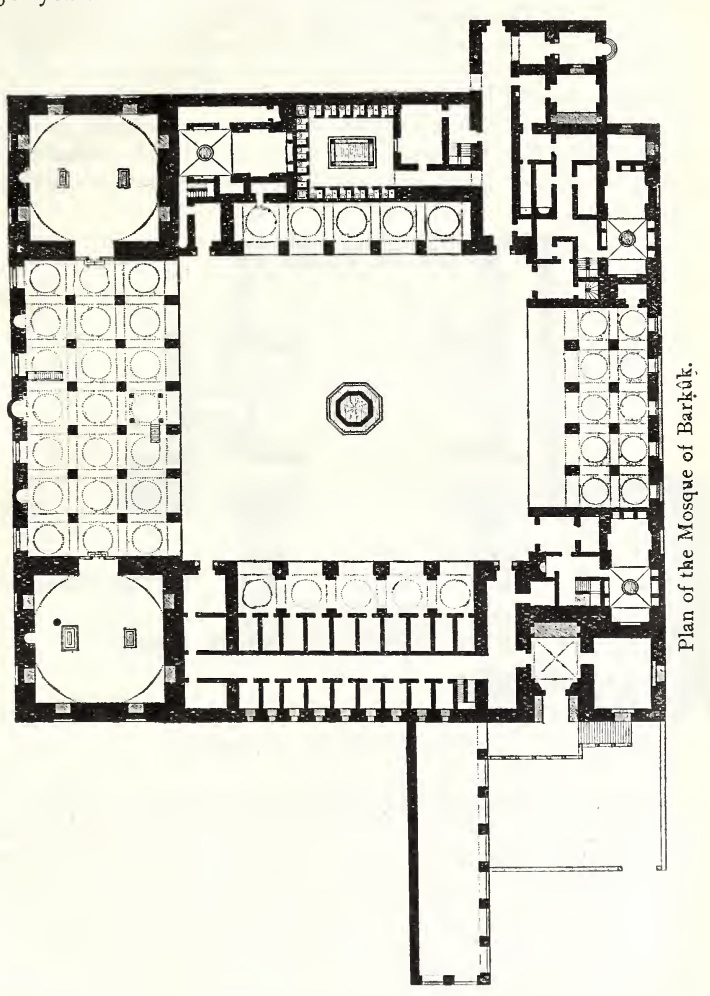
The Lantern in the Sanctuary of the Mosque of Sulṭân Ḥasan.

113 feet high, and the mosque is about 320 feet long and 200 feet wide; the remaining minaret is the highest in Cairo, and is about 280 feet high. The stones used in the building came from the Pyramids. One of the most beautiful features of the building is the cornice, with six rows of stalactites, which surmounts the whole wall. The largest arch is 90 feet high and 70 feet wide. The mosque was to have had four minarets, but the third fell down immediately after it was built, and killed 300 children in the school below; one of the two which remained fell into a decayed state, and when rebuilt in 1659 was made too short. The tomb of Ḥasan is a simple marble monument; above it is a dome built after 1660, for the original dome collapsed in that year. The **terrace roof** of the mosque has been from time to time used for cannon, and "shots were frequently exchanged between it and the Citadel down to the time of Muḥammad 'Ali." The **Sulṭân**



Plan of the Mosque of Sulṭân Ḥasan

Barkûk removed the steps to the mosque and closed the great door, and once the building was shut up for about 50 years. Mr. Poole tells us that in the middle of the

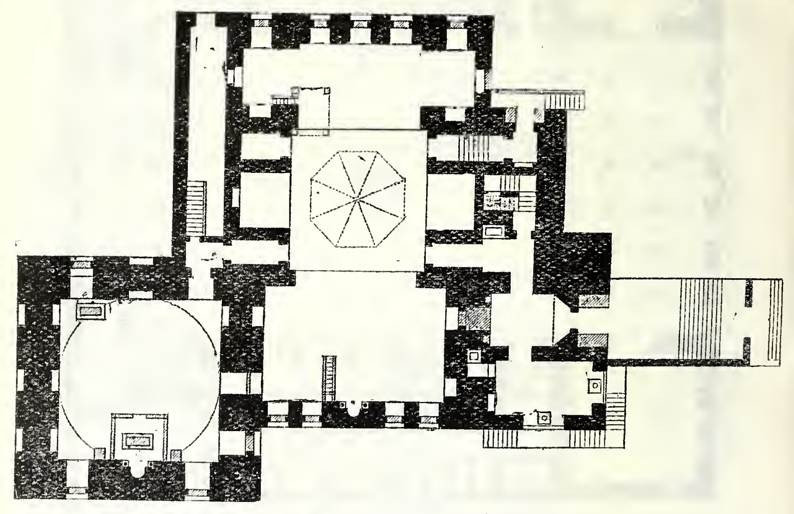


Plan of the Mosque of Barḳûḳ.

fifteenth century a tight-rope was stretched from the minaret to the Citadel, whereon a gymnast disported himself, to the tremendous delight of the populace. One of the most

interesting objects in the mosque is the door leading to the tomb, which is plated with **arabesques in bronze, and inlaid with gold and silver.**

VII. The **Mosque of Barḳûḳ** was begun during the lifetime of Sulṭân Barḳûḳ, and was finished by his sons Farag and Asis in **1410.** It is a square building, and its two domes and two minarets render it a picturesque and striking object; in fact, some authorities consider it to be the most beautiful example of Saracenic architecture. The stone pulpit was presented to the mosque by Ḳâ'iṭ Bey, and is a very fine specimen of its class.



Plan of the Mosque of Ḳâ'iṭ Bey.

VIII. The **Mosque of Ḳâ'iṭ Bey** was built about **1475**, and is usually considered to be one of the finest architectural works in Cairo; when we remember the numerous building operations which he carried on in Cairo and in other parts of his dominions, and the beauty of the work and intricacy of the ornaments with which he decorated them, this is not to be wondered at. The arabesques and medallions which ornament the stones of the main arch are marvellous specimens of that class of work, and the mosaics in the pavement and walls are very fine. The carved woodwork of the pulpit is especially deserving of note; in connection with this it may be mentioned

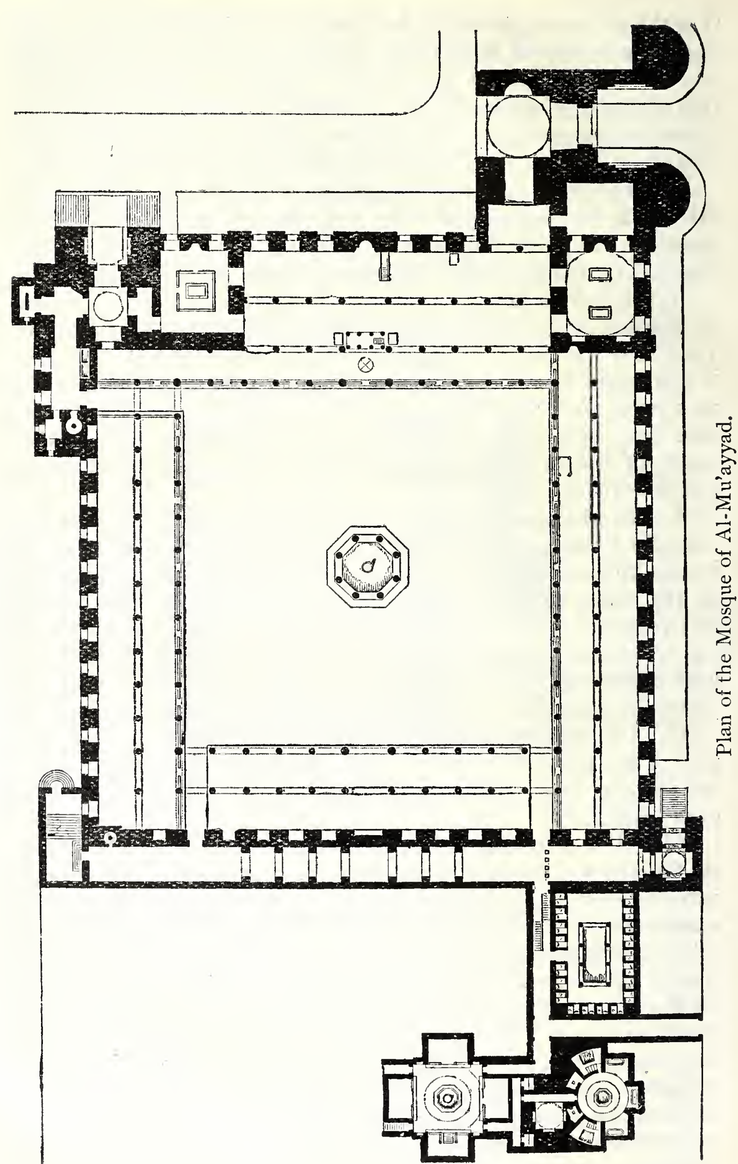
that the stone pulpit which he built in Barḳûḳ's tomb-mosque illustrates the skill which the workmen of the day possessed, and the application of geometrical patterns to the ornamentation of slabs of stone. The **minaret** is a beautiful and most characteristic example of Saracenic architecture of the fifteenth century. The mosque is about 80 feet long and 70 feet wide.

IX. The **Mosque of Al-Ḥâkim** was founded in **990 by Al-'Azîz,** and prayers were said in it a year later; the decoration, minarets, etc., were begun in 1003 by his son Ḥâkim, and were finished in 1013. The Crusaders turned this mosque into a church in 1167, when they occupied Cairo; it was afterwards used for stables, and it was practically destroyed by the earthquake of 1303, but was restored by **Bêbars** the following year. In 1420 it was again in ruins, and since then the court has been used as a rope walk; for a few years some of the arcades at the east end were used as a museum of Arab art. The square bases of the minarets do not belong to the original building, but date from 1302.

X. The **Mosque of Al-Mu'ayyad** was built by **Mu'ayyad,** one of the Circassian Mamlûks, and was finished about **1412**; it is also known as "Al-Aḥmar," *i.e.*, "the Red," from the colour of the walls outside. The fine bronze-plated entrance door was removed by Al-Mu'ayyad from the Mosque of Ḥasan in 1410. In the Lîwân or sanctuary are the tombs of the founder and several of the members of his family. The mosaics, panels, ornaments, and inscriptions are well worth examination.

XI. The **Mosque of Abû Bakr Mazhar** belongs to the latter part of the fifteenth century; it is interesting chiefly because of the red and black plaster mosaic with which one of its walls is ornamented.

XII. The **Mosque of Al-Ghûri** was built by the Sulṭân **Al-Ghûri,** who began to reign in **1501**. His *madrasah,* or college, was built in 1503, and his tomb-mosque a year later; they stand one on one side of the street and one on the other. He fell at the age of 76 fighting against the Turks at Marg Dâbak, near Aleppo, on August 24th, 1516, for, having been deserted by the two wings of his army, he and his bodyguard were trampled under foot by the horsemen of the enemy. He will be remembered as the builder of a minaret of the Mosque of Al-Azhar, and the Mosque of the Nilometer on the Island of Rôḍah, the great Sabîl or Fountain in the Rumêlah, the watermills at Old Cairo, and as the restorer of the Aqueduct to the Citadel.



Plan of the Mosque of Al-Mu'ayyad.

XIII. The **Mosque of Zênab,** the daughter of 'Ali, and the granddaughter of Muḥammad the Prophet, dates from the end of the eighteenth century, and contains the name of the "lady Zênab"; it was finished early in the nineteenth century, and has since been restored.

The traveller who is interested in the Mosques of Cairo will find a brief description of the special features of **Muḥammadan Architecture** as illustrated by them, with outline illustrations, in the chapter printed at the end of the portion of this Guide that deals with Cairo. A series of remarks on **Arab Art** and the principal **handicrafts** and on **Manuscripts** is also added. (*See* p. 221 *ff.*)

6. The Quarters of Cairo.

The city of Cairo is divided for administrative purposes into 13 Quarters (*Ḳism*); their names and populations are: 'Abdîn (72,394), Bâb ash-Shâria (65,103), Bûlâḳ (111,543), Darb al-Aḥmar (69,079), Ezbakîyah (56,402), Gamalîyah (62,329), Khalîfah (59,802), Mûski (23,659), Fusṭâṭ (34,968), Sayyidah Zênab (76,606), Shûbrah (80,554), Wailî (78,509). To the north of Cairo, in the neighbourhood of the village of **Shûbrah,** about three miles from Cairo, Muḥammad 'Ali built a palace, and caused M. Barillet, an eminent Parisian landscape gardener, to lay out gardens on the bank of the Nile. The drive is a pleasant one, and the shade of the luxuriantly-growing trees on each side of the road is agreeable. To the north-east of Cairo is the quarter of **'Abbâsîyah,** which is called after the Khedive 'Abbâs I, and part of which was built at his suggestion. In the Barracks a number of British soldiers are quartered. To the west of Cairo is **Bûlâḳ,** the old port of Cairo, which still does a considerable business in connection with river-borne produce. Here is situated the Viceregal Printing Press, from which large numbers of editions of important Arabic works have issued. It is easily reached by electric tram, and on the nights of popular festivals the streets present an interesting and animated appearance. Opposite is the **Island of Bûlâḳ** (*Gazîrat Bûlâḳ*) commonly known as **Gazîrah,** where Ismâ'îl Pâshâ built a magnificent palace, since turned into an hotel, and laid out a racecourse. Here many gymkhânas are held, and both Europeans and natives are eager to enjoy the races and other entertainments which are provided by the Khedivial Sporting Club. In the afternoons the main road of Gazîrah presents a very

animated scene, and is filled with carriages and motors in which the well-to-do folks of Cairo drive out to take the air. In the residential parts of Gazîrah are numerous fine houses and beautiful gardens. The island is connected with the east bank of the Nile by means of a fine iron bridge, commonly known among Europeans as **Ḳaṣr an-Nîl Bridge**, and among natives as **Al-Kubrî**; the bridge is 1,250 feet long, and at each end are two massive pillars, surmounted by bronze lions. This bridge is opened at the east end for one and a half or two hours each afternoon in order to permit sailing boats to pass up and down the river; to the left, at the west end of it, are the offices for the collection of the octroi, or city tax, now abolished. From 6.30 to 9 a.m. the bridge is crowded with market gardeners and others bringing in their wares to the markets in the city by innumerable camels, donkeys, etc., and the sight is an interesting one. In former years, when there was no other bridge over the Nile, and insufficient connection existed between the Cairo terminus of the lines from Alexandria, Port Sa'îd, and Suez with the line for Upper Egypt, travellers booked for the south crossed this bridge, and made their way to Bûlâḳ Ad-Dakrûr Station. Since the building of the **Imbâbah Bridge**, a little to the north of Gazîrah, trains for the south leave from the new railway station in Cairo. The Imbâbah Bridge is provided with a carriage road and foot-paths for passengers. To the east of the Bûlâḳ Quarter is the **Ismâ'îlîyah Quarter**, which was founded by and named after the Khedive Ismâ'îl; in this quarter are the **Ezbakîyah (Azbakîyah) Gardens**, which are named after Ḳâ'it Bey's Amîr Azbakî (1468–96) and were laid out by Barillet.

The site was occupied by a lake in the Middle Ages, and the reclamation of the land has added about 18 faḍḍans, or acres, to the area of the city. In this quarter also the Museum of Egyptian Antiquities is situated.

7. The Citadel.

The **Citadel** was built by Ṣalâḥ ad-Dîn (**Saladin**), and was intended by him to be the strongest part of the fortifications with which he girdled Cairo; it stands on a spur of the Muḳaṭṭam hills, and although in these days, since it can be commanded by cannon placed on those heights, it is practically useless, it was, when built, practically impregnable. The work was begun in 1176–7 under the direction of the Amîr Karakûsh,

and was finished in 1207–8. An inscription above the Gate of Steps states that "the building of this splendid castle—
"hard by Cairo the Guarded, on the terrace which joins use to
"beauty, and space to strength, for those who seek the shelter
"of his power—was ordered by our master the King, Strong-
"to-aid, Saladin, Conquest-laden, Yûsuf, son of Ayyûb,
"Restorer of the Empire of the Caliph; with the direction of
"his brother and heir the Just King, Seyf ed-dîn Abu Bekr
"Mohammad, friend of the Commander of the Faithful; and
"under the management of the Emir of his Kingdom and
"Support of his Empire Karakûsh, son of 'Abdallah, the slave
"of el-Melik en-Nâsir in the year 579"* (1183–4). The stone for the Citadel was taken from the Pyramids, and Ibn Jubêr, who visited Cairo in 1183, says that the men who were employed in the building of it were European prisoners whom Saladin had captured in his wars, and he adds that the Muslims who laboured did so without pay. In other words, Saladin made use of the **corvée**. In the Citadel are:—(1) The **Mosque of An-Nâṣir**, which was built by the Sulṭân **Nâṣir** in **1317–18**, and is also known as the Mosque of Ibn Ḳalâûn; and (2) the **Mosque of Sulêmân Pâshâ**, or **Sulṭan Salîm**, built in **1526**. The Hall of Yûsuf, which was thought to be Saladin's is, in Mr. Poole's opinion, part of a Mamlûk palace. The **Mosque of Muḥammad 'Ali**, which is also in the Citadel, was begun by Muḥammad 'Ali, and finished by Sa'îd Pâshâ in 1857. The yellow marble columns and slabs came from the quarries of Bani Suwêf. The tomb of Muḥammad 'Ali is seen on the right on entering. The clock in the tower was presented by Louis Philippe of France. In the narrow way, through the Bâb al-'Azab, with a high wall on each side, which was formerly the most direct and most used road to the Citadel, the massacre of the Mamlûks took place on March 1st, 1811. All the Mamlûks of any position or power were, under one pretence or another, decoyed into the Citadel, the excuse being that they were to assist at the investiture of Ṭusûn, Muḥammad 'Ali's son, with a pelisse and the command of the army. Shahîn Bey and all the other chiefs of the Mamlûks save one went to the Citadel with their followers, and were graciously received by Muḥammad 'Ali. Having drunk coffee, they formed a procession, and with the Pâshâ's troops in front and behind them they marched down this narrow way, but as soon as they had arrived at the gate it was suddenly closed

* Lane-Poole, *Cairo*, p. 176.

before them. The troops who had marched out immediately before the gate was shut were Albanians, and these at once marched back by another road to places where they could command the Mamlûks who were shut in between the walls in the narrow road; as soon as they had arrived where they themselves could not be injured, they opened fire on the Mamlûks, the Pâshâ's troops who were behind them doing the same. In a very short time the Mamlûks were either shot down or, if they tried to escape, cut down with the sword; 470 Mamlûks entered the Citadel, and it is said that only one escaped. This he is supposed to have done by making his horse leap through an opening in the wall down into the moat; the poor horse is said to have been killed, and the man to have escaped.

Joseph's Well.—The well in the Citadel which is commonly known by this name is a very ancient one, and it existed before Saladin built the Citadel. The architect Karakûsh found it to be filled with sand, and having cleared it out, and perhaps deepened and enlarged it, he called it after the first name of his master, the Well of Yûsuf, or Joseph. Popular Jewish opinion assumed that the Joseph referred to was their patriarch, the son of Jacob, and the erroneous idea that the well was the work of the Israelite who was sold into Egypt spread abroad. The well is 289 feet deep, and is in two sections; at the top of the first was a water-wheel, by which the water was regularly raised for the use of the garrison until the year 1865, when other means of supply became available.

8. The Mûski and Bâzârs of Cairo.

To the places in Cairo where goods are sold or exchanged and to markets in general the name "**bâzâr**"* has been commonly given by Europeans, but among the Egyptians the word employed is "**Sûk,**" and this originally indicated a portion of a street, or a whole street, which consisted chiefly, or solely, of houses with shops appropriated to one particular trade. Thus the market of the coppersmiths and workers in brass is called "Sûḳ An-Naḥḥâsîn," the market of the jeweller is "Sûḳ Al-Gawharîgin," etc. Wholesale dealers usually congregate in a building called a "**Wakkâlah**"; † the word signifies a

* From the Turkish and Persian بازار, *bāzār*.

† وكالة, sometimes وكّالة, *wakkalah*.

place where a merchant can store his goods or wares in safety. The Wakkâlah is a rectangular courtyard on each side of which are built rows of vaulted chambers in which goods can be stored; all these chambers face the courtyard, and above them are series of small rooms which open on to terraces wherein merchants and others may lodge. The Wakkâlah has only one entrance, and the door, which is always shut at night, is kept by a porter. Mr. Lane estimated that in his time there were about 200 wakkâlahs in Cairo, and that three-fourths of these were within the bounds of the original city. The shops in a bâzâr, or *sûḳ*, are usually small apartments, a few feet square, in which the shopkeeper sits, but in the modern portions of bâzârs more space for customers is now provided, and dealers in Indian stuffs and wares have counters on which to display their wares, and chairs for their clients. In the old shops the Muslim expects his customer to sit on the same level with himself, and to remove his shoes if he sits cross-legged; known customers, or those who are expected to become buyers to any considerable extent, are usually provided with a small cup of coffee at the expense of the shopkeeper, and a pipe or a cigarette is also offered. In many shops the visitor is asked if he prefers his coffee with or without sugar, and in those kept by Persians he is offered his choice between tea and coffee. If the "deal" takes a long time coffee is brought in at intervals.

There is no royal road for becoming a skilled purchaser of "bargains" in Cairo, any more than at Damascus, Baghdad, Constantinople, or any other Oriental city, and each year the chances of "picking up bargains" becomes rarer and rarer. For the last 30 years the shops all over Cairo have been ransacked by European dealers, amateurs, and wealthy buyers of curiosities of every kind, and most of the best things have passed out of the country. In respect of modern goods, carpets, woodwork, and the like, it should be remembered that the merchant is fully aware of the value of the goods which he wishes to sell, and native shrewdness and experience tell him quickly whether a particular piece of goods has "taken the fancy" of the would-be purchaser or not. When asked to name a price for a certain object he always mentions a figure which is enormously in excess of the value of the object, knowing full well that there is very little chance of getting it, and that he will have to reduce it; the price asked may be said to be *always* out of all proportion to the market value of the object, plus a generous allowance for working expenses.

Still, experience shows that every now and then a purchaser *does* pay exactly what he is asked, and every merchant hopes that similar good fortune, in the form of such a customer, may come to him. Where time is no object and men have nothing to do but haggle and bargain with retail customers, the business of buying must always be a slow one. The haggling and bargaining, however, is not really about the value of the object, but about the amount of the profit which the merchant is content to make out of it, for the market value of most things sold in the bâzârs is very well known, and every good merchant knows at the beginning what is the lowest price for which he will part with an object. The would-be purchaser should first of all try to find out from friends or residents what is the ordinary market value of the thing which he wishes to buy, and then, having made a reasonable allowance for working expenses, and for the fact that he himself is a stranger, make his offer, which is quite likely to be accepted after a few objections have been raised by the merchant. Many Europeans begin by offering a quarter or a sixth of the price asked them for a carpet, or piece of *mashrabiyah*, without the least regard to the market value of the object, but offers of this kind only prove to the merchant that his customers know nothing about the value of what they wish to buy. It is better, if possible, to deal with a merchant without any go-between or dragoman, for he will sell cheaper when he is quite certain that no subsequent demands will be made upon him for *bakshîsh;* he is usually willing to give *bakshîsh* to dragomans and commission to touts, but in the end the traveller pays both. The cupidity of the Egyptian is one of his most unpleasant characteristics, but there is no doubt that the love of the "nimble shilling" will often make a merchant do business for a profit of from 2 to 5 per cent. rather than lose a good customer. In the purchase of "antikas" great care should be exercised, for genuine antiquities are scarce, and forgeries abound. Imitation scarabs are often well made, for the Egyptian workman has learned how to cut the commonest cartouches with great success, and also how to melt the glaze chipped from ancient beads and to lay it on his modern steatite scarabs by means of a blowpipe. Genuine antiquities are now rare, and their prices have risen so greatly that the traveller has to pay nowadays as many pounds for a genuine scarab of good colour as francs were paid in 1883, or piastres in 1870.

From the Isma'ilîyah Quarter of Cairo, in which are most of the handsome, modern hotels, the easiest means of access to the bazaars is *viâ* the **Mûski,** a street which leads us directly into one of the oldest parts of the town. A tradition says that the Mûski dates from the time of **Saladin**, who, with characteristic broad-mindedness, allowed foreign merchants, *i.e.*, Franks or Europeans, to enter the city, and gave them this street to settle in and carry on their trades. Its character has changed greatly in recent years, and the native shops, with their picturesqueness and odour and sleepiness, have disappeared, and large shops, built on the French pattern, with plate-glass windows, gilded fascias, etc., have taken their places. At one time the Mûski was practically roofed in, and in the hottest day buyers and sellers, rich and poor, sought and found there coolness and shade; all the roofing has now been removed, and the danger from fire is, in consequence, much less than formerly. About half a mile along the Mûski the road is intersected by a tramway, which has been built upon the site of the old **Khalîg Canal,** now filled in. This canal used to enter the Nile opposite the Island of Rôḍah, and tradition says that it was dug soon after 642 by 'Amr, who intended it to form a means of communication between the Nile and the Red Sea. At the end of the streets which form the continuation of the Mûski is **Windmill Hill,** from which a magnificent view of the whole city is obtained. A great many interesting afternoons may be spent in visiting the Mûski, especially the eastern or less Europeanized end of it, and the man who is interested in watching Oriental crowds, with their variety of life and colour, and the ever-changing scenes which they present, cannot fail to gather from the different phases of bâzâr life both instruction and amusement. Like the famous bridge at Constantinople, it forms an excellent standpoint from which to study the faces and physical characteristics of the mixed throng of peoples which pass up and down it in an endless stream. On days of festival the traveller will see representations of almost every nation, from Germany in the north to the White Nile in the south, and from India in the east to Morocco in the west. The people are amiable and good-natured, and enjoy a joke, and the anxiety of the merchants to attract Europeans to their shops ensures the visitor a courteous welcome. Order is kept by the police with imperturbable good-nature, and the excellence of their management is proved by the fewness of the accidents that occur in

this comparatively narrow street, which seems to be packed all day with donkeys, strings of camels, loaded carts, water-carriers, sherbet and sweetmeat sellers, carriages and pairs, porters, beggar children, veiled women, and a multitude of men, women, and children dressed in garments of every conceivable shape and colour.

9. The Coptic Churches of Old Cairo.*

The church of **Mâr Mînâ** lies between Fusṭâṭ and Cairo; it was built in honour of St. Menas, an early martyr, who was born at Mareotis and martyred at Alexandria during the persecution of Galerius Maximinus. The name Mînâ, or Menâ, probably represents the Coptic form of Menà, , the name of the first dynastic king of Egypt. The church was probably founded during the fourth century, and it seems to have been restored in the eighth century; the first church dedicated to Mâr Mînâ was built at the place now called Bu Mînâ, which lies about halfway between Alexandria and the Natron Lakes. The church measures 60 feet by 50 feet; it contains some interesting pictures, and a very ancient bronze candelabrum in the shape of two winged dragons, with 17 sockets for lighted tapers. On the roof of the church is a small bell in a cupola.

About half a mile beyond the Dêr, or "Monastery," containing the church of St. Menas lies the Dêr of **Abû's Sêfên**, in which are situated the churches of Al-'Aḍra (the Virgin), Anba Shenûti, and Abû's Sêfên. The last-named church was built in the tenth century, and is dedicated to St. Mercurius, who is called "Father of the two swords," or Abû's Sêfên. The church measures 90 feet by 50 feet, and is built chiefly of brick; there are no pillars in it. It contains a fine ebony partition dating from A.D. 927, some interesting pictures, an altar casket dating from A.D. 1280, and a marble pulpit. In this church are chapels dedicated to Saints Gabriel, John the Baptist, James, Mâr Buḳṭor, Antony, Abbâ Nûb, Michael, and George. Within the Dêr of Abû's Sêfên is the "Convent of the Maidens"; the account of Mr. Butler's discovery of this place is told by him in his *Coptic Churches of Egypt*, vol. i, p. 128.

* The principal authorities for the facts relating to Coptic churches are Butler's *Coptic Churches of Egypt*, 2 vols., 1884; and Curzon, *Visits to Monasteries in the Levant.*

The church of the Virgin was founded, probably, in the eighth century. The church of **Abû Sargah,** or Abû Sergius, stands well towards the middle of the Roman fortress of Babylon in Egypt. Though nothing is known of the saint after whom it was named, it is certain that in A.D. 859 Shenûti was elected patriarch of Abû Sargah; the church was most probably built much earlier, and some go so far as to state that the crypt (20 feet by 15 feet) was occupied by the Virgin and her Son when they fled to Egypt to avoid the wrath of Herod. "The general shape of the church is, or "was, a nearly regular oblong, and its general structure is "basilican. It consists of narthex, nave, north and south "aisle, choir, and three altars eastward each in its own chapel; "of these the central and southern chapels are apsidal, the "northern is square ended . . . . . . Over the aisles and "narthex runs a continuous gallery or triforium, which "originally served as the place for women at the service. "On the north side it stops short at the choir, forming a "kind of transept, which, however, does not project beyond "the north aisle . . . . . . On the south side of the church "the triforium is prolonged over the choir and over the south "side-chapel. The gallery is flat-roofed, while the nave is "covered with a pointed roof with framed principals like that "at Abû's Sêfên . . . . . . Outside, the roof at Abû Sargah "is plastered over with cement showing the king-posts project-"ing above the ridge-piece. Over the central part of the choir "and over the haikal the roof changes to a wagon-vaulting; "it is flat over the north transept, and a lofty dome over-"shadows the north aisle chapel . . . . . . The twelve "monolithic columns round the nave are all, with one "exception, of white marble streaked with dusky lines . . . . . "The exceptional column is of red Assuân granite, 22 inches in "diameter . . . . . . The wooden pulpit . . . . . . is of "rosewood inlaid with designs in ebony set with ivory "edgings . . . . . . The haikal-screen projects forward into "the choir as at Al 'Adra . . . . . and is of very ancient and "beautiful workmanship; pentagons and other shapes of solid "ivory, carved in relief with arabesques, being inlaid and set "round with rich mouldings . . . . . . The upper part of the "screen contains square panels of ebony set with large crosses "of solid ivory, most exquisitely chiselled with scrollwork, "and panels of ebony carved through in work of the most "delicate and skilful finish." (Butler, *Coptic Churches,*

vol. i, pp. 183–190, *ff.*) The early carvings representing St. Demetrius, Mâr George, Abû's Sêfên, the Nativity, and the Last Supper are worthy of careful examination.

The **Jewish synagogue** near Abû Sargah was originally a Coptic church dedicated to St. Michael, and was sold to the Jews by the patriarch Michael towards the end of the ninth century; it measured 65 feet by 35 feet, and was said to contain a copy of the Law written by Ezra. It fell down in 1888.

A little to the south-east of Abû Sargah is the **church** dedicated to the **Virgin,** more commonly called **Al-Mu'allaḳah,** or the "hanging," from the fact that it is suspended between two bastions, and must be entered by a staircase. The church is triapsal, and is of the basilican order. It originally contained some very beautiful screens, which have been removed from their original positions and made into a sort of wall, and, unfortunately, modern stained glass has been made to replace the old. The cedar doors, sculptured in panels, are now in the British Museum. The cedar and ivory screens are thought to belong to the eleventh century. The church is remarkable in having no choir, and Mr. Butler says it is "a double-aisled "church, and as such is remarkable in having no transepts." The pulpit is one of the most valuable things left in the church, and probably dates from the twelfth century; in the wooden coffer near it are the bones of four saints. Authorities differ as to the date to be assigned to the founding of this church, but all the available evidence now known would seem to point to the sixth century as the most probable period; at any rate, it must have been before the betrayal of the fortress of Babylon to 'Amr by the Monophysite Copts in the seventh century. A little to the north-east of Abû Sargah is the church of **St. Barbara,** who was the daughter of a man of position in the East, and was martyred during the persecution of Maximinus; it was built probably during the eighth century. In the church are a picture of the saint and a chapel in honour of St. George. At the west end of the triforium are some mural paintings of great interest. Within the walls of the fortress of Babylon, lying due north of Abû Sargah, are the two churches of **Mâr Girgis** and the **Virgin.** To the south of the fortress of Babylon, beyond the Muḥammadan village on the rising ground, lie the **Dêr of Bablûn** and the **Dêr of Tadrus.** In the Dêr al-Bablûn is a church to the Virgin, which is very difficult to see. It contains some fine mural paintings, and an

unusual candlestick and lectern ; in it also are chapels dedicated to Saints Michael and George. This little building is about 53 feet square. Dêr at-Tadrus contains two churches dedicated to Saints Cyrus and John of Damanhûr in the Delta; there are some fine specimens of vestments to be seen there. A short distance from the Mûski is a Dêr containing the churches of the Virgin, St. George, and the chapel of Abû's Sêfên. The church of the Virgin occupies the lower half of the building, and is the oldest in Cairo. The chapel of Abû's Sêfên is reached through a door in the north-west corner of the building, and contains a wooden pulpit inlaid with ivory. The church of St. George occupies the upper part of the building, and is over the church of the Virgin. In the Greek (Byzantine) quarter of Cairo is the Dêr at-Tadrus, which contains the churches of St. George and the Virgin. The Coptic churches of Cairo contain a great deal that is interesting, and are well worth many visits. Though the fabrics of many of them are not older than the sixth, seventh, or eighth century of our era, it may well be assumed that the sites were occupied by Coptic churches long before this period.

10. Bûlâḳ and the Bûlâḳ Bridge.

Bûlâḳ, which was long famous for its workshops and its tumbledown Post Office (wherein the Government of the day established the first Museum of Egyptian Antiquities), is a thriving place, and can now be easily reached by tramway direct. The old Ismâ'îlîyah Canal has been filled in, and the whole district is much cleaner and healthier than formerly. In the lanes and alleys that run out of the main street the shops have much the same appearance as they had a couple of generations ago, and the people live there in peaceful enjoyment of their ancient manners and customs as if Europeans did not exist. The quarter has preserved all the true Oriental characteristics which the Mûski has lost under Frankish influence, and the scenes exhibited there during the evenings of festival days are particularly interesting. The alleys are filled with a good-humoured, laughing crowd ; veiled women, donkeys, vendors of sweetmeats and sham jewellery and ornaments, sherbet sellers, mountebanks, wrestlers and acrobats, all jostle each other and form a motley group which cannot now be seen elsewhere in Cairo. The flaring

lights and the shouts and cries of every pitch do not lessen the effect on the visitor. The Bûlâḳ Bridge, at the end of the main street, is about 880 feet long, and was finished in 1912.

11. The Island of Rôḍah and the Nilometer.

Opposite to the southern portion of the Island of Rôḍah was the mouth of the **Khalîg Canal**, which is said to have been cleared out by 'Amr after he founded Fusṭât, and used for the conveyance of corn to the Red Sea. Quite close is Al-Ḳanâṭîr, the station where water was drawn from the Nile, and sent along the aqueduct which supplied the citadel previous to 1866. A company of soldiers was stationed in the building to prevent the cutting off of the water during a revolt. On the south end of the island, which is now reached by a bridge, is the famous **Nilometer.** It seems that the *first* Nilometer on the island was built by Osâma bin Zêd in 716, and that this superseded the old Nilometer at Memphis, and was still in use in 944. Under the rule of Yazîd the *second* Nilometer was founded, and the charge of measuring the rise of the Nile was taken out of the hands of the Copts, who had attended to this matter until that time. This was in 861. In 873 Ibn Ṭûlûn repaired this Nilometer, and built a fort on the island; he is said to have spent 1,000 dînârs on the Nilometer. "The interior of the "building is about 18 feet square, and contains on each of its "sides a recess, about 6 feet wide and 3 deep, surmounted by "a pointed arch. Over each of these arches is an inscription "of one short line, in old Kufî characters; and a similar inscrip-"tion, a little above these, surrounds the apartment or well. "They are passages from the Ḳur'ân, and contain no date. It "is, however, almost certain that they are not of a later period "than that of the completion of the building by Al-Mutawekkil, "and, though it has been repaired since that time, it has not "been since rebuilt." (Lane's *Modern Egyptians*, vol. ii, p. 341.) Ibn Ṭûlûn's repairs were carried out 12 years after the completion of the building, and in the inscriptions referred to above the characters are identical with those used in his mosque. Although it cannot be finally proved, it is pretty certain that the pointed arches in the Nilometer building are 16 years older than those of the mosque; according to Mr. Poole, the architect was a native of Ferghâna, on the Iaxartes. In the early years of the sixteenth century Al-Ghûrî built a mosque by the Nilometer.

The **Nilometer**, or gauge, is a pillar, with a scale divided into cubits (the cubit = $21\frac{1}{3}$ inches) and ḳîrâṭs (1 ḳîrâṭ = $\frac{1}{24}$th part of a cubit). Sir W. Willcocks says that when the gauge was constructed a reading of 16 cubits meant the lowest level at which flood irrigation could be ensured everywhere. The level in 1909 was $20\frac{1}{2}$ cubits on the gauge. The Rôḍah gauge, from its long series of observations, would be of inestimable value if its records were trustworthy, but, unfortunately, this has not always been the case. For some generations past, at least for two centuries, the shêkh of the Nilometer has been in the habit of recording the height of the Nile by marks on the wall, and by the steps in the well in which the Nilometer column is erected, instead of by the scale of cubits which is cut on the column (Lyons, *Physiography*, p. 318). In former years when the Khalîg Canal was in use, a dam was built across it near the bridge soon after the Nile began to rise, and when the shêkh of the Nilometer announced that the water had risen $15\frac{2}{3}$ cubits, this dam was cut amid great rejoicings. This was the signal for cutting the dams of all the irrigation canals throughout the country, for when the Nile had risen to this height it was believed that there was water enough to irrigate every field in Egypt. As it was the object of the Government, for the purposes of taxation, to make the people always believe that the Nile was a good one, the proclamation of the shêkh was often made *before* the river had actually risen $15\frac{2}{3}$ cubits. According to Arab tradition, the Egyptians had a custom, when the Nile began to rise, of casting a young virgin, gaily dressed, into the river as a sacrifice to the Nile-god to ensure a plentiful inundation. This custom is said to have been abolished by 'Amr, and in the year in which he did this it is said that the Nile did not rise at all for three months; the people attributed this to the abolition of the custom, and feared a famine. At length 'Amr wrote to his master, the Khalîfah 'Omar, and told him of what he had done, and what the people feared. 'Omar replied approving of his general's act, and told him to throw into the Nile a paper on which was some writing, which he enclosed with his answer. The writing on the paper was: "From "'Abd Allah 'Omar, Prince of the Faithful, to the Nile in "Egypt. If thou flow of thine own accord, flow not; but if "it be God, the One, the Mighty, Who causeth thee to flow, "we implore God, the One, the Mighty, to make thee flow." 'Amr threw the writing into the Nile, and on the following night, we are told, the river rose 16 cubits! (Lane, *op. cit.*, ii, p. 230.)

12. The Tombs of the Khalîfahs and Mamlûks*, and the Petrified Forests.

These interesting buildings, which stand on the eastern side of the city to the north of the Citadel, were built by the Mamlûk rulers of Egypt; they fall naturally into two groups, northern and southern. The buildings of the northern group, which are commonly called the **Tombs of the Mamlûks,** are the older, and contain the tombs of several of the Baḥrite Mamlûks who ruled Egypt from **1250 to 1380.** The **Baḥrite Mamlûks** were descended from the battalion of picked Mamlûks which was stationed on the Island of Rôḍah by Malik Aṣ-Ṣâlaḥ, who began to reign in 1240, and because of the position of their barracks, its members were called "Baḥrî," *i.e.*, "River" Mamlûks. The tombs of this group are in a very bad condition, and of some little more than the minarets remain, and in the precincts of several of them modern graves have been made. It is impossible to say when they began to fall into ruin, but it is quite certain that the greatest injury has been done to them during and since the rule of Muḥammad 'Ali, for this despot seized the moneys which had been put in trust for the maintenance of the tomb-mosques, and much other religious property, and diverted them to his own uses. When the revenues of such buildings had been confiscated in this way, only one end was possible, and of this end the tombs of the Mamlûks are a sad example. Among the buildings here worthy of note are the **tomb** of the **Imâm Shâfi'i** and the **tomb-mosque of Muḥammad 'Ali,** where several of his family and descendants are buried. The latter is well worth a visit, for the tombs of the Pâshâs are fine specimens of modern work, which, however, appears coarse by the side of the products of the Saracen tomb builders of the fourteenth and fifteenth centuries. Many of the notables of Cairo during the nineteenth century were buried in this necropolis, and it is easy to see that the tombs of the thirteenth and fourteenth centuries have suffered in consequence. The buildings of the southern group of tombs, which are commonly but erroneously called **"Tombs of the Khalîfahs,"** form the burial place of the Circassian Mamlûks, who ruled Egypt from **1382–1517.** These Mamlûks were called **"Burgite"**

* The word *Mamlûk* means "slave," and is applied to many of the rulers of Egypt who had been originally slaves; thus, Bêbars the Great only fetched £20 in the slave market.

or "Tower"* **Mamlûks,** because they belonged to the soldiers whose quarters were in the Citadel, and "Circassian," to distinguish them from the Baḥrite Mamlûks, who were Turks, and because most of them were Circassians. The tombs most worthy of note are:—(1) The tomb of **Al-Ghûrî** (1501–1516); (2) the tomb of **Ashrâf**; (3) the tomb of the **Amîr Yûsuf**; (4) the tomb of **Barḳûḳ** and **Farag** his son; (5) the tomb of **Sulêmân**, or Salîm; (6) the tomb of **Barsbey**; (7) the tomb-mosque of **Ḳâ'it Bey**. The last named is undoubtedly the finest building of the group, and its dome and minaret make it a striking feature of the necropolis.

For those who have the tîme the traveller may proceed from the Tombs of the Khalîfahs to the **Little Petrified Forest,** near the eastern end of Gabal Muḳaṭṭam, about six miles distant. Here, on a part of Gabal al-Khashab, or "Wood Mountain," lie many tree trunks which became petrified with silicates in past ages. Authorities differ as to the species of tree which is here represented, but most of them agree that the petrifaction took place in the later tertiary period. About a mile distant is the so-called **Moses' Spring.** The **Great Petrified Forest** lies to the east of the Little Petrified Forest, a fatiguing ride of full four hours from Cairo, but the petrified trunks are larger in every way and very numerous. It is best visited when the traveller is making a journey to Suez in a motor.

13. Heliopolis.

Hotels.—Heliopolis Palace Hotel, Heliopolis House Hotel.

In recent years a large number of well-to-do Cairenes have migrated from the capital to Heliopolis, and as a result a fine and important residential suburb has sprung up there. Good substantial houses are being built there on the very edge of the desert, and broad roads are being made in all directions. The desert air is most pure and invigorating. The new suburb is quickly reached by rail or electric tram.

The ruins of Heliopolis may be reached by tram or rail, and lie about five miles to the north-east of Cairo. If the route by road be chosen a stop should be made at the village of **Maṭarîyah,** where are the Tree and the Well which tradition connects with the Virgin Mary; in fact, the former is commonly called the "Virgin's Well," and the latter the "Virgin's Tree."

* From the Arabic بُرْج, "tower, fortress"; compare Greek πύργος.

The fall of this venerable tree, due to old age, took place on July 14th, 1906, but fortunately a living shoot from it remains, and we may hope that it will grow and become a fine tree like its parent. It is said that the Virgin sat under this tree and rested with the Child during her flight to Egypt, but there is reason for believing that the sycamore which now stands at Maṭarîyah was not planted until some time towards the end of the seventeenth century, and it therefore seems that it is only one of a series to which the name has been given. Isma'îl Pâshâ is said to have given it to the Empress Eugénie on the occasion of the opening of the Suez Canal in 1869. From the Well the Virgin is said to have drawn the water with which she washed the Child's garments, and when she threw it away a luxuriant crop of balsam-bearing plants sprang up where the water had fallen. These plants were the parents of the "balsam trees" which flourished at Heliopolis, and it was believed that they would grow nowhere out of Egypt. The oil from them was greatly prized, and no Christian was thought to have been properly baptized unless one drop of it had been poured into the font. It will be remembered that the Apocryphal Gospels state that the idols of Heliopolis fell down when Mary and the Child arrived; a later tradition asserts that the Virgin was so frightened that she did not enter the city at all, but pressed on to Maṭarîyah, where fatigue compelled her to rest.

About a mile beyond the village is the site of the ancient city of **Heliopolis**, the ruins of which are said to cover an area three miles square. The chief deity of Heliopolis was a form of the Sun-god, who appears to have been worshipped here as early as the IVth dynasty. A powerful priesthood ministered in the temple, and the form of religion and worship which they introduced into Egypt modified all existing institutions and formed the foundation of all the later theology of the ruling classes of the country. The priesthood of the Theban god, Åmen, based their cult largely upon that of Heliopolis. **Usertsen I**, 2433 B.C., rebuilt the "House of the Sun," and dedicated it to Horus-Rā, *i.e.*, the rising Sun, and Temu, *i.e.*, the setting Sun, who was incarnate in the Mnevis Bull. Before this temple Usertsen I set up two granite obelisks, the tops of which were covered with copper cases; 'Abd al-Laṭîf saw both standing in A.D. 1200, but a mob threw one down wilfully in the thirteenth century. The

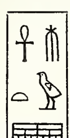
Obelisk still standing has a considerable portion of its base buried in the mud which has gathered round it in the course of centuries; the portion visible is about 66 feet high. The inscription is the same on all four sides, and records the names and titles of Usertsen I. The Egyptians called Heliopolis Ȧnnu-meḥt, [hieroglyphs], *i.e.*, Northern Ȧnnu, and the Hebrews called it "On." The Jewish quarter was a large one, and it will be remembered that Joseph the Patriarch married the daughter of Potipherah (in Egyptian something like [hieroglyphs] *Pa-ṭa-pa-Rā*, *i.e.*, "The gift of the Sun-god"; compare the Greek name Heliodoros), a priest of On. After the fall of the XIIth dynasty the power of Heliopolis waned, and of its history during the Hyksos Period we know nothing. Between 1200 and 1100 B.C. it prospered, and about 720 B.C. the temple must have been in a flourishing state, for Piānkhi, the Nubian, visited the sanctuary and made offerings to the Sun-god. He opened the shrine and saw the two boats of the Sun and the figure of the god himself in the Benben chamber, and, to the credit of the fierce warrior be it said, he did neither sanctuary nor priests any harm. In the Ptolemaïc Period the sages of Heliopolis removed to Alexandria, and the city decayed rapidly; when Strabo visited it, 24 B.C., it was practically in ruins, although many of the larger statues, the walls, and some of the stronger buildings, were in a more or less complete state. Traditions cluster thickly about Heliopolis, and not the least interesting is that which makes the Phœnix bring its ashes here at intervals of 500 years—in fact, each time it renewed its life.

The following transcript and rendering give the contents of the inscription on the obelisk, which appears to have been dedicated on the first day of a Seṭ Festival, *i.e.*, at the beginning of a thirty-year period. The inscription is of interest, and illustrates the use of the various names of the king. As Horus, *i.e.*, as the successor of the oldest god of Egypt, he was called "Ānkh-mestu"; as king of Upper and Lower Egypt united his name was "Kheper-ka-Rā"; as lord of the oldest sanctuaries of the South and North he used his Horus name, "Ānkh-mestu"; and this also was his name as the Golden Horus; as the son of Rā his name was "Usertsen."

The Obelisk of Usertsen I.



The Horus,
Ḥeru

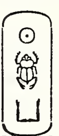


the one born of life.
ānkh

mestu



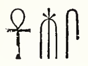
King of the South and North,
nesu bȧt



(KHEPER-KA-RĀ),



Lord of the shrine Nekhebet,
Lord of the shrine Uatchet,
Nebti



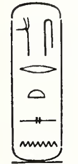
the one born of life,
ānkh



mestu



the son of the Sun,
sa Rā



(USERTSEN),



of the spirits of
baiu



Ȧnnu (Heliopolis)
Ȧnu



beloved,
meri

living
ānkh

for ever.
tchetta



Ḥeru-nub
The Golden Horus,

ānkh mestu
the one born of life,

the beautiful god,
neter nefer

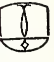


(KHEPER-KA-RĀ).

On the first day of the
hru tep

Seṭ Festival true
Seṭ maāt





he made [this obelisk],
ȧri-f

the giver of life
ṭā ānkh



for ever.
tchetta

14. Trip to the Barrages.

The visitor to Cairo should not fail to pay a visit to the Barrage, which is situated about 15 miles to the north of Cairo, for a very enjoyable afternoon may be spent there. The journey from the Central Railway Station in Cairo to the **Barrage Station** occupies from 30 to 40 minutes, and there are several trains running each way in the day. On arriving at the Barrage Station the visitor will find trolleys awaiting him, and taking his seat on one of these, he is propelled by swift runners, and in a very few minutes finds himself at the Barrage itself. Here he will find much to interest him, and the examination of the towers, lock, gates, sluices, etc., will occupy the greater part of an hour. The Barrage is in reality a series of **four Barrages**. The first Barrage holds up the water in the Tawfîḳî Canal, and is the smallest of the four. The second is built across the Damietta Arm of the Nile and is about one-third of a mile in length. The third is built across the Rosetta Arm of the Nile and is nearly as long as the second Barrage; and the fourth is built across the Maḥmûdîyah Canal. The Barrage Gardens are beautifully laid out, and contain a number of rare trees, plants, etc.; they are under the management of Mr. W. Draper, F.L.S. A portion of them was wrecked by the collapse of the great regulator in 1909, but Mr. Draper's energy has reduced the general effects of the destruction to a minimum, and now the Gardens are as beautiful as ever. The visitor should pay a visit to the **Barrage Museum**, which contains many large-scale models of dams, barrages, etc. Here, with the help of Mr. Draper's explanations, he will be able to understand some of the principles which underlie the construction of these wonderful works, and will certainly realize the constant care which is necessary for utilizing to the fullest degree the life-giving water of the Nile. One of the models which illustrate the dredging of the Nile can be set in motion by electricity, and it is to be wished that power for working it were always available. The inspection of the models and the Gardens completed, the visitor reseats himself on the trolley, and so returns to the Barrage Station. The history of the Barrages is given above (*see* pp. 73 *ff.*).

15. The Pyramids of Gîzah.

Hotel.—Mena House Hotel.

The Arabs call the pyramids of Gîzah **Al-Ahrâm,*** which seems to mean something like "old ruined buildings." The

* الأهرام

pyramids of the Sûdân are called by the natives **Tarabîl,*** the exact meaning of which is unknown. The ancient Egyptian word for "pyramid" appears to have been PER-EM-US [hieroglyphs], and it probably meant "a building with a sloping side."

On the western bank of the Nile, from Abû Roâsh on the north to Mêdûm on the south, is a slightly elevated tract of land, about 25 miles long, on the edge of the Libyan desert, on which stand the pyramids of **Abû Roâsh, Gîzah, Zâwyat al-'Aryân, Abuṣîr, Ṣaḳḳârah, Lisht, and Dahshûr.** Other places in Egypt where pyramids are found are Al-lâhûn in the Fayyûm, Hawârah, and Kullah near Asnâ. The pyramids built by the Nubians or Ethiopians at Ḳurrû, Zûma, Tanḳâsi, Gabal Barkal, Nûri, and Bagrâwîr (Meroë), are of various dates and are mere copies, in respect of form only, of the pyramids in Egypt. **The pyramids were tombs** and nothing else. There is no evidence whatever to show that they were built for purposes of astronomical observations, and the theory that the Great Pyramid was built to serve as a standard of measurement, though ingenious, seems to the present writer to be impossible. The significant fact, so ably pointed out by Mariette, that pyramids are only found in cemeteries, is an answer to all such theories. The ancient writers who have described and treated of the pyramids are given by Pliny (*Natural History*, xxxvi, 12, 17). If we may believe some of the writers on them during the Middle Ages, their outsides must have been covered with inscriptions, which were, probably, of a religious nature. In modern times they have been examined by Shaw (1721), Pococke (1743), Niebuhr (1761), Davison (1763), Bruce (1768), Denon and Jomard (1799), Hamilton (1801), Caviglia (1817), Belzoni (1817), Wilkinson (1831), Howard Vyse and Perring (1837-38), Lepsius (1842-45), and Petrie (1881).

It appears that before the actual building of a pyramid was begun a suitable rocky site was chosen and cleared, a mass of rock if possible being left in the middle of the area to form the core of the building. The chambers and the galleries leading to them were next planned and excavated. Around the core a truncated pyramid building was made, the angles of which were filled up with blocks of stone. Layer after layer of stone

* طرابيل.

was then built around the work, which grew larger and larger until it was finished. Dr. Lepsius thought that when a king ascended the throne, he built for himself a small but complete tomb-pyramid, and that a fresh coating of stone was built around it every year that he reigned; and that when he died the sides of the pyramids were like long flights of steps, which his successor filled up with right-angled triangular blocks of stone. The door of the pyramid was walled up after the body of its builder had been laid in it, and thus remained a finished tomb. Another explanation of the method employed in the building of pyramids was put forward by Professor Petrie, but recent researches have proved that Lepsius's view is the correct one. During the investigations made by Lepsius in and about the pyramid area, he found the remains of about 75 pyramids, and noticed that they were always built in groups.

The pyramids of Gîzah were opened by the Persians during the fifth and fourth centuries before Christ; it is probable that they were also entered by the Romans. The Khalîfah **Mâmûn (A.D. 813-833)** entered the Great Pyramid, and found that others had been there before him. The treasure which is said to have been discovered there by him is probably fictitious. Once opened, it must have been evident to everyone what splendid quarries the pyramids formed, and for some hundreds of years after the conquest of Egypt by the Arabs they were laid under contribution for stone to build mosques, etc., in Cairo. Late in the twelfth century **Malik al-Kâmil** made a mad attempt to destroy the third pyramid at Gîzah, built by Mycerinus; but after months of toil he only succeeded in stripping off the covering from one of the sides. Muḥammad 'Alî ordered the Barrage to be built with stones from the Great Pyramid, and was only persuaded to give up the plan because it was cheaper to get stone from the quarries.*

The **Great Pyramid**, the largest of the three pyramids at Gîzah, was built by **Khufu**, (𓍹𓐍𓅱𓆑𓅱𓍺), or **Cheops**, the second king of the IVth dynasty, 3733 B.C., who called it 𓄿𓐍𓏏𓉴, *Áakhut.* His name was found written in red ink upon the blocks of stone inside it. All four sides measure in greatest length about 775 feet each, but the length of each was

* The outer casings and inscriptions of the Pyramids have been discussed by Mr. A. E. Hudd, in the *Proceedings* of the Clifton Antiquarian Club (Exeter, 1906).

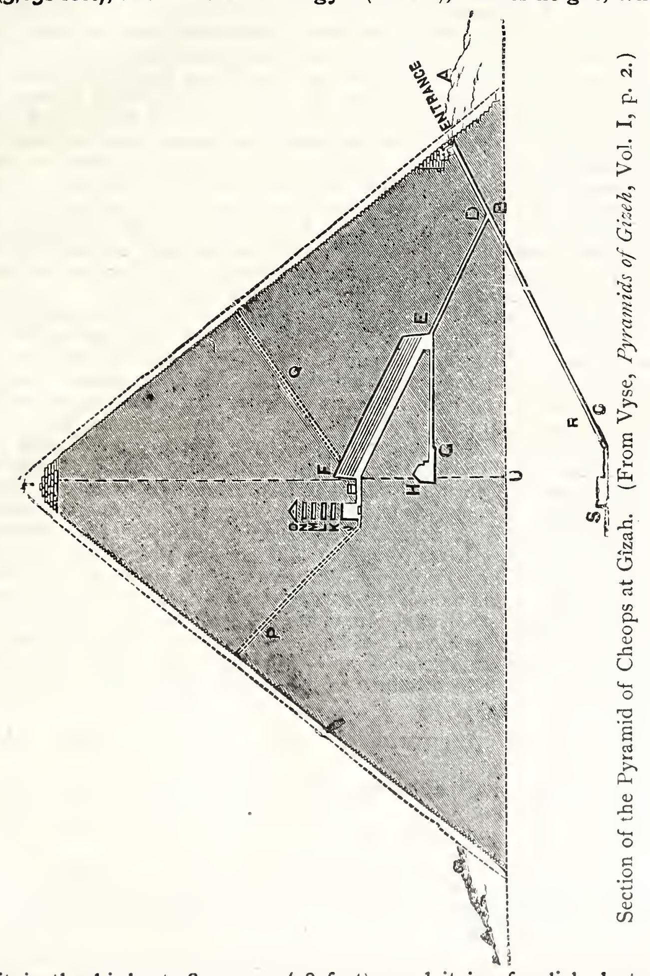
originally about 20 feet more; its height now is 451 feet, but it is said to have been originally about 481 feet. The stone used in the construction of this pyramid was brought from Ṭurah and Muḳaṭṭam, and the contents amount to 85,000,000 cubic feet. The flat space at the top of the pyramid is about 30 feet square, and the view from it is very fine.

The entrance (A) to this pyramid is, as with all pyramids, on the north side, and is about 45 feet above the ground. The passage A B C is 320 feet long, $3\frac{1}{4}$ feet high, and 4 feet wide; at B is a granite door, round which the path at D has been made. The passage at D E is 125 feet long, and the large hall, E F, is 155 feet long and 28 feet high; the passage E G leads to the pointed-roofed **Queen's Chamber,** H, which measures about 17 feet by 19 feet by 20 feet. The roofing in of this chamber is a beautiful piece of mason's work. From the large hall, E F, there leads a passage 22 feet long, the ante-chamber in which was originally closed by four granite doors, remains of which are still visible, into the **King's Chamber,** J, which is lined with granite, and measures about 35 feet by 17 feet by 19 feet. The five hollow chambers, K, L, M, N, O, were built above the King's Chamber to lighten the pressure of the superincumbent mass. In chamber O the name Khufu was found written. The air shafts, P and Q, measure 234 feet by 8 inches by 6 inches, and 174 feet by 8 inches by 6 inches respectively. A shaft from E to R leads down to the subterranean chamber S, which measures 40 feet by 27 feet by $10\frac{1}{2}$ feet. The floor of the King's Chamber, J, is about 140 feet from the level of the base of the pyramid, and the chamber is a little to the south-east of the line drawn from T to U. Inside the chamber lies the empty, coverless, broken, red granite **sarcophagus of Cheops,** measuring $7\frac{1}{2}$ feet by $3\frac{1}{4}$ feet by $3\frac{1}{3}$ feet.

The account of the building of this pyramid is told by Herodotus (Book ii, 124–126) as follows:—

"Now, they told me that to the reign of Rhampsinitus there was "a perfect distribution of justice, and that all Egypt was in a high "state of prosperity; but that after him Cheops, coming to reign "over them, plunged into every kind of wickedness. For that, "having shut up all the temples, he first of all forbade them to offer "sacrifice, and afterwards he ordered all the Egyptians to work for "himself; some, accordingly, were appointed to draw stones from "the quarries in the Arabian mountain down to the Nile, others he "ordered to receive the stones when transported in vessels across "the river, and to drag them to the mountain called the Libyan. "And they worked to the number of 100,000 men at a time, each

"party during three months. The time during which the people "were thus harassed by toil lasted 10 years on the road which they "constructed, along which they drew the stones, a work, in my "opinion, not much less than the pyramid: for its length is 5 stades "(3,051 feet), and its width 10 orgyæ (60 feet), and its height, where



Section of the Pyramid of Cheops at Gizah. (From Vyse, *Pyramids of Gizeh*, Vol. I, p. 2.)

"it is the highest, 8 orgyæ (48 feet); and it is of polished stone, "with figures carved on it: on this road then 10 years were "expended, and in forming the subterraneous apartments on the "hill, on which the pyramids stand, which he had made as a burial

"vault for himself, in an island, formed by draining a canal from the "Nile. Twenty years were spent in erecting the pyramid itself: "of this, which is square, each face is 8 plethra (820 feet), and the "height is the same; it is composed of polished stones, and jointed "with the greatest exactness; none of the stones are less than "30 feet. This pyramid was built thus; in the form of steps, which "some call crossæ, others bomides. When they had first built it in "this manner, they raised the remaining stones by machines made "of short pieces of wood: having lifted them from the ground to "the first range of steps, when the stone arrived there, it was put "on another machine that stood ready on the first range, and from "this it was drawn to the second range on another machine; for the "machines were equal in number to the ranges of steps; or they "removed the machine, which was only one, and portable, to each "range in succession, whenever they wished to raise the stone "higher; for I should relate it in both ways, as it is related. The "highest parts of it, therefore, were first finished, and afterwards "they completed the parts next following; but last of all they "finished the parts on the ground, and that were lowest.

"On the pyramid is shown an inscription, in Egyptian characters, "how much was expended in radishes, onions, and garlic, fo rth "workmen; which the interpreter, as I well remember, reading the "inscription, told me amounted to 1,600 talents of silver. And if "this be really the case, how much more was probably expended "in iron tools, in bread, and in clothes for the labourers, since they "occupied in building the works the time which I mentioned, and "no short time besides, as I think, in cutting and drawing the "stones, and in forming the subterraneous excavation. [It is "related] that Cheops reached such a degree of infamy, that being "in want of money, he prostituted his own daughter in a brothel, "and ordered her to extort, they did not say how much; but she "exacted a certain sum of money, privately, as much as her father "ordered her; and contrived to leave a monument of herself, and "asked everyone that came in to her to give her a stone towards "the edifice she designed: of these stones they said the pyramid "was built that stands in the middle of the three, before the great "pyramid, each side of which is a plethron and a half in length." (Cary's translation.)

The **second pyramid** at Gîzah was built by **Khā-f-Rā**, (cartouche), or **Chephren**, the third king of the IVth dynasty, 3666 B.C., who called it (hieroglyphs), *ur*. His name has not been found inscribed upon any part of it, but the fragment of a marble sphere inscribed with the name of Khā-f-Rā, which was found near the temple, close by this pyramid, confirms the statements of Herodotus and Diodorus Siculus, that Chephren built it. A statue of this king, now in the Cairo Museum, was found in the granite temple close by. This pyramid appears to be larger than the Great Pyramid, because it stands upon

a higher level of stone foundation; it was cased with stone originally and polished, but the greater part of the outer casing has disappeared. An ascent of this pyramid can only be made with difficulty. It was first explored in 1816 by Belzoni (born 1778, died 1823), the discoverer of the tomb of Seti I and of the temple of Rameses II at Abû Simbel. In the north side of the pyramid are two openings, one at the base and one about 50 feet above it. The upper opening leads into a corridor 105 feet long, which descends into a chamber 46½ feet by 16⅓ feet by 22½ feet, which held the granite sarcophagus in which Chephren was buried. The lower opening leads into a corridor about 100 feet long, which, first descending and then ascending, ends in the chamber mentioned above, which is usually called **Belzoni's Chamber.** The actual height is about 450 feet, and the length of each side at the base about 700 feet. The rock upon which the pyramid stands has been scarped on the north and west sides to make the foundation level.

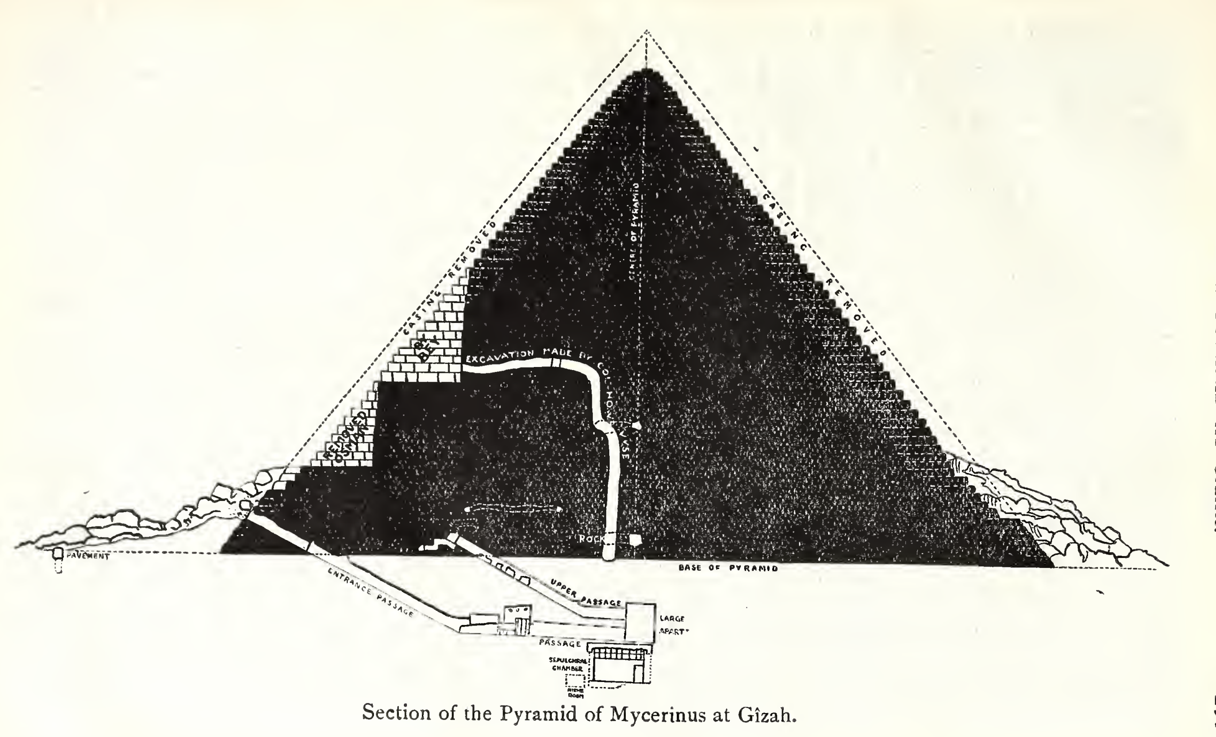
The history of the building of the pyramid is thus stated by Herodotus (Book ii, 127):—

"The Egyptians say that this Cheops reigned 50 years; and "when he died his brother Chephren succeeded to the kingdom; "and he followed the same practices as the other, both in other "respects and in building a pyramid; which does not come up to "the dimensions of his brother's, for I myself measured them; nor "has it subterraneous chambers; nor does a channel from the Nile "flow to it, as to the other; but this flows through an artificial "aqueduct round an island within, in which they say the body of "Cheops is laid. Having laid the first course of variegated "Ethiopian stones, less in height than the other by 40 feet, he built "it near the large pyramid. They both stand on the same hill, "which is about 100 feet high. Chephren, they said, reigned "56 years. Thus 106 years are reckoned, during which the "Egyptians suffered all kinds of calamities, and for this length of "time the temples were closed and never opened. From the hatred "they bear them, the Egyptians are not very willing to mention "their names; but call the pyramids after Philition, a shepherd, who "at that time kept his cattle in those parts." (Cary's translation.)

Early in the year 1909 Messrs. Hölscher and Steindorff, at the expense of Dr. E. Sieglin of Stuttgart, began to excavate the **funerary temple** of the Pyramid of Chephren, and, after two months' work, they were able to obtain a clear idea of its general plan and character. According to their preliminary report, this temple was connected with the so-called Temple of the Sphinx by means of a path, the use of which was hitherto unknown. The entrance to this path, which is about 470

yards long, is at the north end of the Great Hall of Columns in the Temple of the Sphinx. The entrance to the funerary temple was near the south-east corner. At the end of the entrance passage was another passage which ran north and south. On the south end were two store rooms, and on the north a large ante-chamber with four store rooms beyond it. On the west side of the ante-chamber was the entrance to a wide hall with 14 square pillars. At the north and south sides were two passages, which ran due west, and joined two other passages, one of which ran north and the other south. On the west side of the wide hall was a passage leading to a long rectangular hall with 10 square pillars, and on the west side of this was a passage which led to the Great Hall of Columns, which occupied the whole width of the building. This hall contained 12 square pillars, two on the north and two on the south sides, and four on the east and four on the west sides. Beyond were five chambers, each containing a statue of the king, and beyond this were five other chambers, which were reached by a passage on the south side from the Great Hall of Columns. On the north side of the Great Hall was another passage by which the court, which lay between the temple and the pyramid, could be reached. At the west end were other smaller chambers, the use of which is unknown. Most of the walls appear to have been built of alabaster faced with granite, and the pillars were of granite. The total length of the temple must have been nearly 400 feet. In 1912-13 the Harvard-Boston Expedition carried out a series of excavations at the back of the pyramid of Men-kau-Rā, under the direction of Dr. Reisner. The royal burial ground contained three groups of maṣṭabahs, *i.e.* western, southern, and eastern cemeteries. The western cemetery belonged to the time of Khufu, and the eastern to the time of Men-kau-Rā. The American excavators also found portrait statues of Men-kau-Rā, and his wife, which they exported to America.

The **third pyramid** at Gîzah was built by **Men-kau-Rā**, [hieroglyphs], the fourth king of the IVth dynasty, about 3633 B.C., who called it [hieroglyphs], *Ḥer.* Herodotus and other ancient authors tell us that Men-kau-Rā, or **Mycerinus,** was buried in this pyramid, but Manetho states that Nitocris, a queen of the VIth dynasty, was the builder. There can be, however, but little doubt that it was built by Mycerinus, for the



Section of the Pyramid of Mycerinus at Gîzah.

sarcophagus and the remains of the inscribed coffin of this king were found in one of its chambers by Howard Vyse in 1837. The sarcophagus, which measured 8 feet by 3 feet by 2½ feet, was lost through the wreck of the ship in which it was sent to England, but the venerable fragments of the coffin are preserved in the British Museum, and form one of the most valuable objects in the famous collection of that institution. The inscription reads: "Osiris, king of the North and South, "Men-kau-Rā, living for ever! The heavens have produced "thee, thou wast engendered by Nut (the sky), thou art the "offspring of Geb (the earth). Thy mother Nut spreads "herself over thee in her form as a divine mystery. She has "granted thee to be a god, thou shalt nevermore have enemies, "O king of the North and South, Men-kau-Rā, living for "ever." This formula is one which is found upon coffins down to the latest period, but as the date of Mycerinus is known, it is possible to draw some interesting and valuable conclusions from the fact that it is found upon his coffin. It proves that as far back as 3,600 years before Christ the Egyptian religion was established on a firm base, and that the doctrine of immortality was already deeply rooted in the human mind. The art of preserving the human body by embalming was also well understood and generally practised at that early date.

The pyramid of Men-kau-Rā, like that of Chephren, is built upon a rock with a sloping surface; the inequality of the surface in this case has been made level by building up courses of large blocks of stones. Around the lower part the remains of the old granite covering are visible to a depth of from 30 feet to 40 feet. It is unfortunate that this pyramid has been so much damaged; its injuries, however, enable the visitor to see exactly how it was built, and it may be concluded that the pyramids of Cheops and Chephren were built in the same manner. The length of each side at the base is about 350 feet, and its height is variously given as 210 feet and 215 feet. The entrance is on the north side, about 13 feet above the ground, and a descending corridor about 104 feet long, passing through an ante-chamber, having a series of three granite doors, leads into one chamber about 40 feet long, and a second chamber about 44 feet long. In this last chamber is a shaft which leads down to the granite-lined chamber about 20 feet below, in which were found the sarcophagus and wooden coffin of Mycerinus, and the remains of a human body. It is thought that, in spite of the body of

Mycerinus being buried in this pyramid, it was left unfinished at the death of this king, and that a succeeding ruler of Egypt finished the pyramid and made a second chamber to hold his or her body. At a short distance to the east of this pyramid are the ruins of a temple which was probably used in connection with the rites performed in honour of the dead king. In A.D. 1196 a deliberate and systematic attempt was made to destroy this pyramid by the command of the Muḥammadan ruler of Egypt.

The account of the character of Mycerinus and of his pyramid as given by Herodotus (ii, 134), is as follows:—

"They said that after him, Mycerinus, son of Cheops, reigned "over Egypt; that the conduct of his father was displeasing to "him; and that he opened the temples, and permitted the people, "who were worn down to the last extremity, to return to their "employments, and to sacrifices; and that he made the most just "decisions of all their kings. On this account, of all the kings that "ever reigned in Egypt, they praise him most, for he both judged "well in other respects, and, moreover, when any man complained "of his decision, he used to make him some present out of his own "treasury and pacify his anger. . . . This king also left a pyramid "much less than that of his father, being on each side 20 feet short "of three plethra; it is quadrangular, and built half-way up of "Ethiopian stone. Some of the Grecians erroneously say that this "pyramid is the work of the courtesan Rhodopis; but they evidently "appear to me ignorant who Rhodopis was; for they would not "else have attributed to her the building of such a pyramid, on "which, so to speak, numberless thousands of talents were ex-"pended; besides, Rhodopis flourished in the reign of Amasis, and "not at this time; for she was very many years later than those "kings who left these pyramids." (Cary's translation.)

In one of the three small pyramids near that of Mycerinus the name of this king is painted on the ceiling. The age of the **Sphinx** is unknown, and few of the facts connected with its history have come down to these days. Some years ago it was generally believed to have been made during the rule of the kings of the Middle Empire over Egypt, but when the stele which recorded the repairs made in the **Temple of the Sphinx** by Thothmes IV, 1450 B.C., came to light, it became certain that it was the work of a far older period. The stele records that one day during an after dinner sleep, Harmachis appeared to Thothmes IV, and promised to bestow upon him the crown of Egypt if he would dig his image, *i.e.*, the Sphinx, out of the sand. At the end of the inscription part of the name of Khā-f-Rā, or Chephren, appears, and hence some have thought that this king was the maker of the Sphinx;

as the statue of Chephren was subsequently found in the temple close by, this theory was generally adopted, but an inscription found by Mariette near one of the pyramids to the east of the pyramid of Cheops shows that the Sphinx existed in the time of Khufu, or Cheops. The Egyptians called the Sphinx *ḥu*, , and he represented the god Harmachis, *i.e.*, *Ḥeru-em-àakhut*, , "Horus in the horizon," or the rising sun, the conqueror of darkness, the god of the morning. On the tablet erected by Thothmes IV, Harmachis says that he gave life and dominion to Thothmes III, and he promises to give the same good gifts to his successor, Thothmes IV. The discovery of the steps which led up to the Sphinx, of a smaller Sphinx, and of an open temple, etc., was made by Caviglia, who was the first to excavate this monument in modern times. In 1886 Maspero cleared it from sand, and for the first time it was possible for travellers to realize the size and dignity of this extraordinary object.

The Sphinx is hewn out of the living rock, but pieces of stone have been added to fill out the contour where necessary; the body is about 150 feet long, the paws are 50 feet long, the head is 30 feet long, the face is 14 feet wide, and from the top of the head to the base of the monument the distance is about 70 feet. Originally there probably were ornaments on the head, the whole of which was covered with a limestone covering, and the face was coloured red; of these decorations scarcely any traces now remain, though they were visible towards the end of the last century. The condition in which the monument now appears is due to the savage destruction of its features by the Mamlûk rulers of Egypt, some of whom caused it to be used for a target. Around this imposing relic of antiquity, whose origin is wrapped in mystery, a number of legends and superstitions have clustered in all ages; but it is now tolerably certain (1) that it was a colossal image of Rā-Harmachis, and therefore of his human representative upon earth, the king of Egypt who had it hewn, and (2) that it was in existence in the time of, and was probably repaired by, Cheops and Chephren, who lived about 3700 B.C.

A little to the south-east of the Sphinx stands the large granite and limestone temple excavated by M. Mariette in 1853 and the Von Sieglin Expedition in 1909–10. The area of the building is about 150 feet square; the hall is about 60 feet

long and 30 feet broad and contains 10 pillars, and the long, narrow portion is about 80 feet long and 25 feet broad and contains 6 pillars. The sides of the hall and one side of the narrow portion were ornamented with royal statues; it was probably dedicated to the god Seker, but is commonly known as the **Temple of the Sphinx.** Statues of Chephren (now in Cairo) were found at the bottom of a well or pit in one of its chambers, and now it is known that he was the builder of it. It is a good specimen of the solid simple buildings which the Egyptians built during the Ancient Empire. In one chamber, and at the end of the passage leading from it, are hewn in the wall niches which may have been intended to hold mummies.

The **Tomb of Numbers** was made for Khā-f-Rā-ānkh, a "royal relative" and priest of Chephren (Khā-f-Rā), the builder of the second pyramid. It is called the "tomb of numbers," because the numbers of the cattle possessed by Khā-f-Rā-ānkh are written upon its walls.

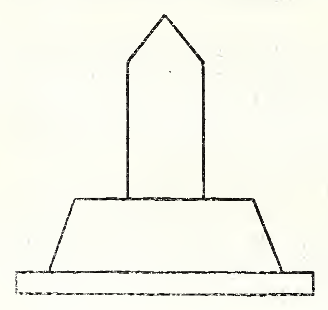
Campbell's Tomb, named after the British Consul-General of Egypt at that time, was excavated by Howard Vyse in 1837; it is not older than the XXVIth dynasty. The shaft is about 55 feet deep; at the bottom of it is a small chamber, and near it are niches in which were found four sarcophagi.

The pyramids of Gîzah are surrounded by a large number of tombs of high officials and others connected with the services carried on in honour of the kings who built the pyramids. Some few of them are of considerable interest, and as they are perishing little by little, it is advisable to see as many of the best specimens as possible.

The **Pyramids of Abû Roâsh** lie about six miles north of the Pyramids of Gîzah. Nothing remains of one except five or six courses of stone, which show that the length of each side at the base was about 350 feet, and a passage about 160 feet long leading down to a subterranean chamber about 43 feet long. It was built for king Ṭeṭ-f-Rā [hieroglyphs], IVth dynasty. A pile of stones close by marks the site of another pyramid; the others have disappeared. The remains of a causeway about a mile long leading to them are still visible.

The **Pyramids of Abuṣîr** lie about eight miles to the south of the Pyramids of Gîzah. These pyramids were originally 14 in number, and the largest of them were built by kings of the

Vth dynasty. On the way thither the ruins at **Abû Gurâb** or **Ar-Rîkah** are passed. Formerly these were thought to be the remains of a pyramid, but it has now been proved that they represent the great **sun-temple** called Shespu-àb-Rā ⊙ [hieroglyphs] which was built by **User-en-Rā,** or Nuser-Rā [cartouche], a king of the Vth dynasty. In all such sun-temples the Sun-god Rā was represented by an **obelisk.** These ruins lie about 1,300 yards to the north-east of the pyramid of this king, and were excavated at the expense of Dr. F. von Bissing by Drs. Borchardt and Schäfer in 1898–1901 (see *Aeg. Zeit.*, 1899, p. 1; 1901, p. 91). The general arrangement of a sun-temple under the Vth dynasty may be thus described: At the western end of a rectangular walled enclosure, about 325 feet long and 245 feet broad, stood a truncated or "blunted" pyramid, and on the top of it was an obelisk. In front of the east side of the pyramid stood an alabaster altar, and on the north side of the altar were channels along which the blood of the victims ran into alabaster bowls, which were placed to receive it. On the north side of the enclosure was a row of store rooms, and on the east and south sides were passages, the walls of which were decorated with reliefs. Opposite the altar, on the east side, was a gateway, and from this ran a pathway, which led by an inclined causeway to another gate, which formed the entrance to another large enclosure, about 1,000 feet square. In this enclosure lived the priests, and in it were kept the sacred objects which were carried in processions on days of festival. Of the details of the worship performed in these temples we know nothing, but it is quite clear that the stone obelisk was the symbol of the Sun-god, and that in it a portion of his spirit dwelt. From this obelisk the spirit of the god looked out and witnessed the slaughter of the victims sacrificed, and enjoyed the spirit-entities of the various offerings which were made to him. The sun-symbol here represented suggests that the earliest worshippers of the sun believed that their god dwelt in a particular stone of pyramidal shape. At



a later period, when perhaps their descendants in other parts of the country could not find a stone of similar shape, a stone in the form of a truncated pyramid was adopted as a symbol of the sun. Later still the obelisk was developed, and under the Vth dynasty we see that the solar symbol consisted of a truncated pyramid with an obelisk set upon it. Where this symbol was invented is not known, but as it was connected with sun worship, it is difficult not to assume that it was introduced into Egypt from Arabia or Western Asia; for among the indigenous Africans in early times the cult of the sun was not widespread. The Egyptian loved the moon, and the festivals of the new moon and full moon were his delight. And many of the modern peoples of Africa, whilst holding the moon in very great reverence, regard the sun with indifference, if not detestation. The exact signification of the sun-symbol is not known. According to some the obelisk represented the axis of earth and of heaven; others again regard it as possessing a phallic signification; and others believe that the idea associated with it was the production of fire and heat. But whatever its signification may have been, the obelisk represented the visible presence of Rā, the Sun-god, in Egypt. And in every sanctuary was a shrine in which, behind sealed doors, was a model of an obelisk, which was jealously guarded, and was only seen by the king on the most solemn occasions. The cult of the standing stone, or pillar, is probably older than the cult of Rā, and the old name of Heliopolis, or the "Sun-city," is Ȧnu [hieroglyphs], *i.e.*, the "city of the pillar." With this city was associated the cult of the phallus, and on its altars human beings were sacrificed to the sun.

The most northerly of the Pyramids of Abuṣîr was built by **Saḥu-Rā** [cartouche], the second king of the Vth dynasty, about 3533 B.C. Its actual height is about 120 feet, and the length of each side at the base is about 220 feet. Recent investigations made by Dr. Borchardt show that the Pyramid of Saḥu-Rā was approached from the low-lying land near the river by a causeway nearly 650 feet in length. At the eastern end of it stood a sort of tower-gate, which was built on the river bank, and had a flight of steps going down to the water. The portico contained eight pillars, and the little hall beyond two, and passing through this and along a short

passage the visitor reached the causeway, or covered passage, which led to the funerary temple. This temple consisted of a narrow, rectangular chamber, with an entrance into a large hall, and beyond this, westwards, were several small chambers, store rooms, and a chamber in which ceremonies were performed privately for the benefit of the dead. To the south of this temple, in an angle formed by the east and south walls of the pyramid enclosure, is the pyramid tomb of the Queen of Saḥu-Rā. The entrance to the sarcophagus chamber in the middle of the king's pyramid is on the north side.

The pyramid of **User-en-Rā**, whose name as the son of Rā was (hieroglyphs), was called "Men-àsut" (hieroglyphs), and was provided with a large funerary temple, which was built on its eastern side. From the eastern end of the temple ran a causeway, over a thousand feet long, which terminated in a massive tower-gate that stood on a spot reached by the waters of the Nile during the period of the inundation. This gateway was built on a rectangular platform, on the river-side of which there was a flight of steps, whereby visitors might ascend, first to the platform and next to the causeway. From the western end of the causeway we pass into a long rectangular court, with several store rooms on each side of it, and thence through a narrow doorway into the Hall of Columns of the funerary temple. West of this hall is a series of chambers, of many of which the use is unknown, They occupy the whole space between it and the pyramid. At the south-east corner of the pyramid is the small pyramid wherein the Queen of User-en-Rā was buried.

Immediately to the north of the funerary temple of the king is the Masṭabah tomb of Userkaf-ānkh (hieroglyphs), and to the north of this is the tomb of Tchatcha-em-ānkh (hieroglyphs), the king's deputy, or viceroy. On the east side of these tombs are tombs of the princesses Nebti-khā-merer (hieroglyphs) and Tefsmert (hieroglyphs). Further to the north is the tomb of Ptaḥ-shepses, who flourished under the IVth dynasty. The largest of all the pyramids in the immediate neighbourhood is that built by

Nefer-ka-ȧri-Rā, son of Rā, **Kakaȧ**, ; many layers of stone have been stripped from its sides, and its ruins are now little more than 150 feet high.

16. Memphis, the Necropolis of Ṣaḳḳârah, Pyramids of Dahshûr, etc.

The name is derived from the Egyptian **Mennefer** whence we have the Coptic ⲙⲉⲙϥⲓ, the Hebrew Moph (Hosea ix, 6) and Noph (Isaiah xix, 13), and the Arabic Manûf. Other names were "White Wall" and "Balance of the Two Lands", and "House of the Ka of Ptaḥ", Coptic ⲉⲕⲉⲡⲧⲁ.

The ruins of **Memphis** and the antiquities at Ṣaḳḳârah are usually reached by steamer or train from Cairo to Badrashên, a village with 7,947 inhabitants, which lies about 14 miles south of Cairo. Leaving the river or station the village of Badrashên is soon reached, and a short ride brings the traveller to the village of **Mît-Rahînah**. On the ground lying for some distance round about these two villages once stood the city of Memphis, though there is comparatively little left to show its limits. According to Herodotus (ii, 99):—

"Menes, who first ruled over Egypt, in the first place protected "Memphis by a mound; for the whole river formerly ran close to "the sandy mountain on the side of Libya; but Menes, beginning "about a hundred stades above Memphis, filled in the elbow towards "the south, dried up the old channel, and conducted the river into a "canal, so as to make it flow between the mountains: this bend of "the Nile, which flows excluded from *its ancient course*, is still "carefully upheld by the Persians, being made secure every year; "for if the river should break through and overflow in this part, "there would be danger lest all Memphis should be flooded. When "the part cut off had been made firm land by this Menes, who was "first king, he in the first place built on it the city that is now called "Memphis; for Memphis is situate in the narrow part of Egypt; "and outside of it he excavated a lake from the river towards the "north and the west; for the Nile itself bounds it towards the east.

"**In the next place,** *they relate* **that he built in it the temple of "Vulcan, which is vast and well worthy of mention."** (Cary's translation.)

Whether Menes, in Egyptian Menȧ [cartouche], built the town or not, it is quite certain that the city of Memphis was of most ancient foundation. The reason why the kings of Egypt established their capital there is obvious. From the peoples that lived on the western bank of the river they had little to fear, but on the eastern side they were always subject to invasions of the peoples who lived in Mesopotamia, Syria, and Arabia; with their capital on the western bank, and the broad Nile as a barrier on the east of it, they were comparatively safe. Added to this, its situation at the beginning of the Delta enabled it to participate easily of the good things of that rich country. The tract of land upon which Memphis stood was also fertile and well wooded. Diodorus speaks of its green meadows, intersected with canals, and of their pavement of lotus flowers; Pliny talks of trees there of such girth that three men with extended arms could not span them; Martial praises the roses brought from thence to Rome; and its wine was celebrated in lands remote from it. The site chosen was excellent, for in addition to its natural advantages it was not far from the sea-coast of the Delta, and holding as it were a middle position in Egypt, its kings were able to hold and rule the country from Philæ on the south to the Mediterranean on the north. Its name, "White Wall," calls to mind the "White Castle" spoken of by classical writers. Tetȧ, son of Menes, built his palace there, and Ka-Kau, the second king of the IInd dynasty, 4100 B.C., established the worship of Apis there. During the rule of the IIIrd, IVth, and VIth dynasties, the kings of which sprang from Memphis, that city reached a height of splendour which was probably never excelled. The most celebrated building there was the **temple of Ptaḥ,** which was beautified and adorned by a number of kings, the last of whom reigned during the XXVIth dynasty. The **Hyksos** ravaged, but did not destroy the city; under the rule of the Theban kings, who expelled the Hyksos, the city flourished for a time, although Thebes became the new capital. When **Rameses II** returned from his wars in the east, he set up a statue of himself in front of the temple of Ptaḥ there; **Piānkhi the Ethiopian** besieged it; the Assyrian kings, **Esarhaddon and Assur-**

banipal, captured it; **Cambyses** the Persian, having wrought great damage there, killed the magistrates of the city and the priests of the temple of Apis, and smote the Apis bull so that he died; he established a Persian garrison there. After the founding of Alexandria, Memphis lost whatever glory it then possessed, and became merely the chief provincial city of Egypt. During the reign of **Theodosius** (379–395), a savage attack, the result of his edict, was made upon its temples and buildings by the Christians, and a few hundred years later the Muḥammadans carried the stones, which once formed them, across the river to serve as building materials for their houses and mosques in their new city of Fusṭâṭ, founded by 'Amr in 642. The circuit of the ancient city, according to Diodorus, was 150 stadia, or about 13 miles. In 1907, Professor Petrie began to excavate a portion of the site of Memphis. He traced out the enclosure of the temple of Ptaḥ, discovered a part of a temple of Hathor, cleared out a building of King Sa-Amen, and a building of Mer-en-Ptaḥ, and located the site of the camp of Memphis, where he found the ruins of the palace of Apries, which is said to have covered two acres, and was probably built upon the remains of earlier palaces. He recovered a number of bas-reliefs which illustrate the celebration of the Seṭ Festival.

The **Colossal Statue of Rameses II.**—This magnificent statue, the larger of the two Colossi that were discovered by Messrs. Caviglia and Sloane in 1820, was presented by them to the British Museum. On account of its weight and the lack of public interest in such matters, it lay near the road leading from Badrashên to Mît-Rahînah, and little by little became nearly covered with the annual deposit of Nile mud; during the inundation the greater part of it was covered by the waters of the Nile. During the winter of 1886-7 Sir Frederick Stephenson collected a sum of money in Cairo for the purpose of lifting it out of the hollow in which it lay, and the difficult engineering part of the task was ably accomplished by Colonel Arthur Bagnold, R.E. This statue is made of a fine hard limestone, and measures about 42 feet in height; it is probably one of the statues which stood in front of the temple of Ptaḥ, mentioned by Herodotus and Diodorus. The prenomen of Rameses II Rā-usr-maāt-setep-en-Rā, is inscribed on the belt of the statue, and on the end of the roll which the king carries in his hand are the words "Rameses.

beloved of Åmen." By the side of the king are figures of a daughter and son of Rameses. Lord Kitchener intended to remove it to Cairo and set it up in the square in front of the Citadel, and his plan only broke down because no bridge was strong enough to carry the weight of this statue. The famous temple of Ptaḥ founded by Menes was situated to the south of the statue. A portion of the other colossal statue lies comparatively near it. Close by is a huge limestone sphinx which was made under the rule of the kings of the XIXth dynasty. It is about 25 feet long and 14 feet high.

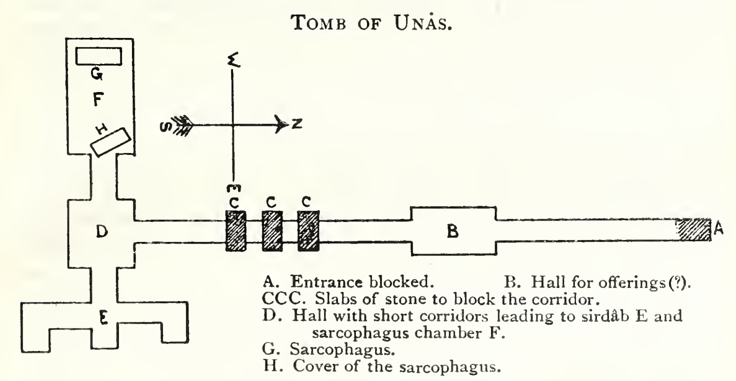
Ṣaḳḳârah.—The name Ṣaḳḳârah probably represents in sound the name of **Seker** [hieroglyphs], an ancient Egyptian god of death. The tract of land at Ṣaḳḳârah which formed the great burial ground of the ancient Egyptians of all periods is about 4½ miles long and one mile wide; the most important objects of interest there are: (1) The Step Pyramid; (2) The Pyramid of Unås; (3) The Pyramid of Tetå; (4) The Pyramid of Pepi I; (5) The Pyramid of Mer-en-Rā; (6) The Pyramid of Pepi II; (7) The Serapeum; (8) The Tomb of Thi; (9) Tomb of Ptaḥ-ḥetep; (10) Tomb of Kaqemna, etc.; (11) Mariette's house.

1. The **Step Pyramid** was built by the third king of the IIIrd dynasty (called [hieroglyphs], Tcheser in the Tablet of Abydos), who is said to have built a pyramid at Kochome (*i.e.*, Ka-Kam), near Ṣaḳḳârah. Though the date of this pyramid is not known accurately, we are undoubtedly right in asserting that it is older than the pyramids of Gîzah. The door which led into the pyramid was inscribed with the name of a king called Rā-nub, and M. Mariette found the same name on one of the stelæ in the Serapeum. The steps of the pyramid are six in number, and are about 38, 36, 34½, 32, 31, and 29½ feet in height; the width of each step is from 6 to 7 feet. The lengths of the sides at the base are: north and south, 352 feet; east and west, 396 feet; and the actual height is 197 feet. In shape this pyramid is oblong, and its sides do not exactly face the cardinal points. The arrangement of the chambers inside this pyramid is peculiar to itself.

2. The **Pyramid of Unås** [hieroglyphs], called in Egyptian Nefer-åsu, lies to the south-east of the Step Pyramid, and was

reopened and cleared out in 1881 by M. Maspero, at the expense of Messrs. Thos. Cook & Son. Its original height was about 62 feet, and the length of each side at the base 220 feet. Owing to the broken blocks and sand which lie round about it, Vyse was unable to give exact measurements. Several attempts had been made to break into it, and one of the Arabs who took part in one of these attempts, "Aḥmad the Carpenter," seems to have left his name inside one of the chambers in red ink. It is probable that he is the same man who opened the Great Pyramid at Gîzah, A.D. 820. A black basalt sarcophagus, from which the cover had been dragged off, and an arm, a shin-bone, some ribs, and fragments of the skull of the mummy of Unàs, were found in the sarcophagus

TOMB OF UNÀS.



A. Entrance blocked. B. Hall for offerings (?).
CCC. Slabs of stone to block the corridor.
D. Hall with short corridors leading to sirdâb E and sarcophagus chamber F.
G. Sarcophagus.
H. Cover of the sarcophagus.

chamber. The walls of the two largest chambers and two of the corridors are inscribed with ritual texts and prayers of a very interesting character. Unàs, the last king of the Vth dynasty, reigned about 30 years. The Maṣṭabat al-Fir'âûn was thought by Mariette to be the tomb of Unàs, but other scholars thought that the "blunted pyramid" at Dahshûr was his tomb, because his name was written upon the top of it.

3. The **Pyramid of Tetà**, called in Egyptian Ṭeṭ-àsu, lies to the north-east of the Step Pyramid, and was opened in 1881. The Arabs call it the **Prison Pyramid**, because local tradition says that it is built near the ruins of the prison where Joseph the patriarch was confined. Its actual height is about 59 feet, the length of each side at the base is 210 feet, and the platform at the top is about 50 feet. The

arrangement of the chambers and passages and the plan of construction followed are almost identical with those of the pyramid of Unȧs. This pyramid was broken into in ancient days, and two of the walls of the sarcophagus chamber have literally been smashed to pieces by the hammer-blows of those who expected to find treasure inside them. The inscriptions, painted in green upon the walls, have the same subject-matter as those inscribed upon the walls of the chambers of the pyramid of Unȧs. According to Manetho, Tetȧ, the first king of the VIth dynasty, reigned about 50 years, and was murdered by one of his guards. The Pyramids of Tcheser, Unȧs, and Tetȧ belong to the Northern Group at Ṣaḳḳârah.

In the spring of 1905 Mr. J. E. Quibell began to excavate the portion of the great **cemetery at Ṣaḳḳârah** which lies to the east of the Pyramid of Tetȧ, with the view of clearing the funerary temple of this king. In the course of the work a maṣṭabah and several tombs of various periods, etc., were found, and a certain number of small antiquities. In 1906–7, the work was continued, and several important objects, including inscribed sarcophagi of the Middle Empire, were discovered, together with some fine "false doors" in stone, portrait figures in wood, figures of servants, boats, etc. During this season Mr. Quibell began to excavate a site on the edge of the desert called Râs al-Gisr, or "head of the dyke," some 600 feet square, which contained the ruins of an ancient Coptic monastery. These were identified some years ago by Professor Maspero as the **Monastery of Saint Jeremiah**, a famous Coptic saint who flourished in the latter half of the fifth century of our era. The plan of the monastery as published by Mr. Quibell, and the coloured reproductions of the figures of saints, etc., which adorn the walls of several of its chambers, suggest that some parts of the monastery are older than this date, and that they belong to the fourth century. On the other hand many parts of the actual remains suggest a very much later date, and some of the repairs and several of the chambers are clearly the work of the ninth century. In 1908 the excavation of the monastery was continued, and the ruins of a church were brought to light. The form of this building was a basilica, with a nave about 33 feet wide, two narrow aisles, and three entrances, the main entrance being from the narthex. From the screen to the west wall is a distance of about 80 feet. Most of the columns were of limestone, four were of granite, and three of marble. The remains of the walls

show that their construction was bad, and they suggest that the church was the latest erected on the site. The east end was decorated with mosaics. The position of the foundations of the apse proves that the earlier building was longer than the later. Round about the church were several brick cells and rooms which served as dwelling-places for the brethren, offices, store rooms, etc. During the same season Mr. Quibell cleared out a portion of the **funerary temple** of the Pyramid of Tetȧ, and in the course of the work discovered the **death mask** of King Tetȧ, and a fine stele of Nektanebês, the last native king of Egypt, dated in the second year of his reign, and describing the building of a temple in honour of the living Apis. Besides this, several maṣṭabah tombs were excavated, and the antiquities discovered in some of them were of considerable interest.

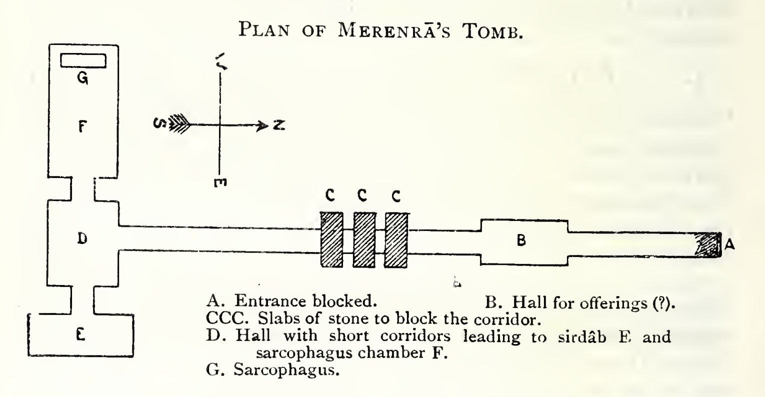
4. The **Pyramid of Pepi I**, or [hieroglyphs]

"Rā-meri, son of the Sun, Pepi," lies to the south of the Step Pyramid, and forms one of the central group of pyramids at Ṣaḳḳârah, where it is called the Pyramid of Shêkh Abû Manṣûr; it was opened in 1880. Its actual height is about 40 feet, and the length of each side at the base is about 250 feet; the arrangement of the chambers, etc., inside is the same as in the pyramids of Unȧs and Tetȧ, but the ornamentation is slightly different. It is the worst preserved of these pyramids, and has suffered most at the hands of the spoilers, probably because, having been constructed with stones which were taken from tombs ancient already in those days, instead of stones fresh from the quarry, it was more easily injured. The granite sarcophagus was broken to take out the mummy, fragments of which were found lying about on the ground; the cover too, smashed in pieces, lay on the ground close by. A small rose granite box, containing alabaster jars, was also found in the sarcophagus chamber. The inscriptions are, like those inscribed on the walls of the pyramids of Unȧs and Tetȧ, of a religious nature; some scholars see in them evidence that the pyramid was usurped by another Pepi, who lived at a much later period than the VIth dynasty. The pyramid of Pepi I, the third king of the VIth dynasty, who reigned, according to Manetho, 53 years, was called in Egyptian by the same name as Memphis, *i.e.*, Men-nefer, and numerous priests were attached to its service. Pepi's kingdom embraced all Egypt, and he waged war against the inhabitants of the peninsula of Sinai. He is

said to have set up an obelisk at Heliopolis, and to have laid the foundation of the temple at Denderah. His success as a conqueror was due in great measure to the splendid abilities of one of his chief officers called Unȧ, who warred successfully against the various hereditary foes of Egypt on its southern and eastern borders.

5. The **Pyramid of Merenrā** with the prenomen of MEḤTI-EM-SA-F, the eldest son of Pepi I. This pyramid is No. 8 on the map of Vyse and Perring, and is called by the Arabs "Haram as-Ṣayyâdîn,"

PLAN OF MERENRĀ'S TOMB.



A. Entrance blocked. B. Hall for offerings (?).
CCC. Slabs of stone to block the corridor.
D. Hall with short corridors leading to sirdâb E and sarcophagus chamber F.
G. Sarcophagus.

or the "Pyramid of the Hunters." An entrance was made into the pyramid by natives in the Middle Ages, and at the beginning of the nineteenth century the villagers of Ṣâḳḳârah reopened it and carried off a number of alabaster vases. They destroyed some of the walls of the inner chambers in their quest for buried treasure, and dug a pit in it some 16 feet deep in their search. The sarcophagus, which is of black granite, was opened by the thieves, and the mummy, now in the Egyptian Museum in Cairo, was stripped of everything. The length of each side of the pyramid at the base is about 260 feet, and its height about 87 feet. This pyramid was cleared out by Mariette in the winter of 1880–1, and the work was completed about a fortnight before his death, which took place on January 18th. The walls of the chambers and corridors of the pyramid are covered with religious texts, many

of which are duplicates of the texts found in the older pyramids of this group.

6. The **Pyramid of Pepi II** (hieroglyphic cartouche), with the prenomen (hieroglyphic cartouche) NEFER-KA-RĀ. This pyramid is No. 9 on the map of Vyse and Perring, and is called by the Arabs "Haram al-Maṣṭabah." It is built in steps, and closely resembles the Pyramid of Merenrā. The length of each side at the base is 245 feet, and its height is 95 feet. It was cleared out in 1881 by Professor Maspero, who in the April of that year was nearly buried alive in it owing to a sudden fall of stones and débris, which blocked the chambers for several hours. The walls of the corridors and chambers of this pyramid also are covered with inscriptions of a religious character, and of these some are found in this pyramid only.

7. The **Serapeum** or APIS MAUSOLEUM contained the vaults in which all the **Apis Bulls** that lived at Memphis were buried. According to Herodotus, Apis "is the calf of a cow "incapable of conceiving another offspring; and the Egyptians "say that lightning descends upon the cow from heaven, and "that from thence it brings forth Apis. This calf, which is "called Apis, has the following marks: It is black, and has a "triangular spot of white on the forehead, and on the back the "figure of an eagle; and in the tail double hairs; and on the "tongue a beetle." Above each tomb of an Apis bull was built a chapel, and it was the series of chapels which formed the Serapeum properly so called; it was surrounded by walls like the other Egyptian temples, and it had pylons to which an avenue of sphinxes led. This remarkable building was excavated in 1850 by **M. Mariette,** who having seen in various parts of Egypt sphinxes upon which were written the names of **Osiris-Apis**, or **Serapis**, concluded that they must have come from the Serapeum or temple of Serapis spoken of by Strabo. Happening, by chance, to discover one day at Ṣaḳḳârah a sphinx having the same characteristics, he made up his mind that he had lighted upon the remains of the long sought-for building. The excavations which he immediately undertook brought to light the **Avenue of Sphinxes,** 11 statues of Greek philosophers, and the vaults in which the Apis bulls were buried. These vaults are of three kinds, and show that the Apis bulls were buried in different ways at different periods: the oldest Apis sarcophagus laid here belongs to the reign of

Amenophis III, about 1450 B.C. The parts of the Apis Mausoleum in which the Apis bulls were buried from the XVIIIth to the XXVIth dynasty are not visible; but the **new gallery**, which contains 64 vaults, the oldest of which dates from the reign of Psammetichus I, and the most modern from the time of the Ptolemies, can be seen on application to the guardian of the tombs. The vaults are excavated on each side of the gallery, and each was intended to receive a granite sarcophagus. The names of Amāsis II, Cambyses, and Khabbesha are found upon three of the sarcophagi, but most of them are uninscribed. Twenty-four granite sarcophagi still remain in position, and they each measure about 13 feet by 8 feet by 11 feet. The discovery of these tombs was of the greatest importance historically, for on the walls were found thousands of dated stelæ which gave accurate chronological data for the history of Egypt. These votive tablets mention the years, months, and days of the reign of the king in which the Apis bulls, in whose honour the tablets were set up, were born and buried. The Apis tombs had been rifled in ancient times, and only two of them contained any relics when M. Mariette opened them out.

8. The **Tomb of Thi** lies to the north-east of the Apis Mausoleum, and was built during the Vth dynasty, about 3500 B.C. Thi [hieroglyphs] was a man who held the dignities of *smer*, royal councillor, superintendent of works, scribe of the court, confidant of the king, etc.; he held also priestly rank as prophet, and was attached to the service of the pyramids of Abuṣîr. He had sprung from a family of humble origin, but his abilities were so esteemed by one of the kings, whose faithful servant he was, that a princess called Nefer-ḥetep-s was given him to wife, and his children, Thi and Tamut, ranked as princes. Thi held several high offices under Kakaȧ [cartouche] and User-en-Rā [cartouche], kings of the Vth dynasty. The tomb or maṣṭabah of Thi is now nearly covered with sand, but in ancient days the whole building was above the level of the ground. The chambers of the tomb having been carefully cleared, it is possible to enter them and examine the very beautiful sculptures and paintings with which the walls are decorated. To describe these wonderful works of art adequately would require more space than can be given here; it must be sufficient to say that the scenes represent Thi

superintending all the various operations connected with the management of his large agricultural estates and farm-yard, together with illustrations of his hunting and fishing expeditions.

9. The **Tomb of Ptaḥ-ḥetep,** a priest who lived during the Vth dynasty, is a short distance from Mariette's house. The scenes in this maṣṭabah are splendid examples of the best class of the artistic work of the period as applied to tomb ornamentation, and well worthy of more than one visit.

10. To the north-east of the Step Pyramid, and close to the pyramid of Tetȧ, are the tomb of **Kaqemna,** a high official under the Vth or VIth dynasty, which was excavated under the direction of M. de Morgan; the family vault of **Mereruka,** wherein his wife and son had separate tombs; and a **group of tombs,** which were excavated by M. Victor Loret in 1899. The most important tomb of the group is that of **Ānkh-em-Ḥeru,** which is commonly known as the **Tomb of the Physician** because surgical operations connected with circumcision, etc., are depicted upon its walls. Further to the south is the **Maṣṭabat al-Fir'âûn,*** a royal tomb, probably of the Vth dynasty. The most interesting of all the pyramids at Ṣaḳḳârah are those having chambers and corridors inscribed with hieroglyphic texts, viz., the Pyramids of Unȧs, Tetȧ, Pepi I, Pepi II, Mer-en-Rā, etc.

11. **Mariette's House.**—This house, which lies a little to the east of the Serapeum, was the headquarters of M. Mariette and his staff when employed in making excavations in the Necropolis of Ṣaḳḳârah in 1850 and 1851. It is not easy to estimate properly the value to science of the work of this distinguished man. It is true that fortune gave him the opportunity of excavating some of the most magnificent of the buildings of the Pharaohs of all periods, and of hundreds of ancient towns; nevertheless, it is equally true that his energy and marvellous power of work enabled him to use to the fullest extent the means for advancing the science of Egyptology which had been put in his hands. It is to be hoped that his house will be preserved on its present site as a remembrance of a great man who did a great work.

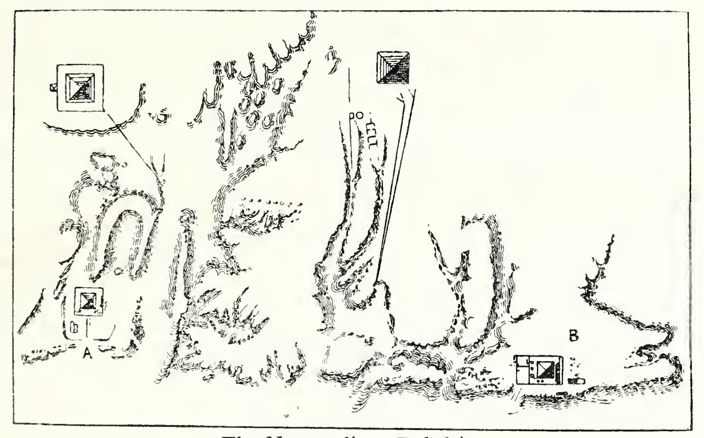
* The Maṣṭabat al-Fir'âûn was visited by Edward Melton in the second half of the seventeenth century, and he says that the Arabs told him that the Pharaohs used to climb on to the top of it each time they had a new law to declare to the people. (*Zee-en Land-Reizen*, Amsterdam, 1681, p. 54.)

The **Pyramids of Dahshûr,** four of stone and two of brick, are $1\frac{1}{2}$ miles from the Maṣṭabat al-Fir'âûn, once thought to be the Pyramid of Unȧs. The largest stone pyramid is about 326 feet high, and the length of each side at the base is about 700 feet; beneath it are three subterranean chambers. The second stone pyramid is about 321 feet high, and the length of each side at the base is 620 feet; it is usually called the **Blunted Pyramid,** because the lowest parts of its sides are built at one angle, and the completing parts at another. The larger of the two brick pyramids is about 156 feet high, and the length of each side at the base is about 350 feet; the smaller is about 90 feet high, and the length of each side at the base is about 343 feet. The brick pyramids were excavated by M. de Morgan.

The **Northern Pyramid** is built of unburnt bricks laid without mortar, in place of which sand is used, and an examination of them shows that they belong to the period of the XIIth dynasty. Soon after the work of clearing had been begun, a stone bearing the cartouche of **Usertsen III,** [cartouche] was found, and thus a tolerably exact date was ascertained; on February 26th, 1894, the entrance to a pit was found, and in the east corner there appeared an opening which led through a gallery and sepulchral chamber to several tombs. In one chamber were the fragments of a sarcophagus and statue of **Menthu-nesu,** and in another was the sarcophagus of **Nefert-ḥent;** it was quite clear that these tombs had been wrecked in ancient days, and therefore to the pit by which they were reached M. de Morgan gave the name "Pit of the Spoilers." Along the principal gallery were four tombs, and in the second of these a queen had been buried; on the lower stage eight sarcophagi were found, but only two were inscribed. Subsequently it was discovered that the burial-place of a series of princesses had been found, and in consequence M. de Morgan called the place "Gallery of Princesses." In one of the tombs (No. 3) a granite chest containing four uninscribed alabaster Canopic jars was found, and in another similar chest a worm-eaten wooden box, containing four Canopic jars, was also discovered. The four sides of the box were inscribed, but the jars were plain. While the ground of the galleries was being carefully examined, a hollow in the rock was found, and a few blows of the pick-axe revealed a magnificent find of gold and silver jewellery lying in a heap among the fragments of the

worm-eaten wooden box which held it. The box was about 11 inches long, and had been inlaid with silver hieroglyphics which formed the name of the princess **Hathor-Sat,** for whom the ornaments had been made. In the same tomb was found a box full of the jewellery of the lady **Merit.** It would seem that special care had been taken by the friends of the deceased to conceal the boxes of jewellery, and thus the ancient spoilers of the tomb had overlooked them. These beautiful objects are now to be seen in the Egyptian Museum, Cairo.

The wooden boats and sledge which were discovered outside the wall enclosing the pyramid are worthy of note, and are of considerable interest.



The Necropolis at Dahshûr.
A The Northern Pyramid, built of bricks.
B The Southern Pyramid, built of bricks.

The **southern brick** pyramid of Dahshûr is on a lower level than the northern, and much of its upper portion has been removed by the *fallâḥîn*, who treated it as a quarry for the bricks with which they built their houses. It is, however, in a better state of preservation than its fellow, and is still an imposing object in the Egyptian landscape. M. de Morgan's estimate of the length of each side is 125 feet; this pyramid is, like the northern, built of crude bricks, and it was surrounded by a wall of crude bricks, which enclosed the ground wherein the members of the royal family were buried. While excavating in this spot, M. de Morgan found some fragments of a base of a statue inscribed with the prenomen of Åmen-em-ḥat III,

[cartouche], and, judging from this fact and from the general appearance of the site, he would ascribe this necropolis to the period of the XIIth dynasty. About 20 feet from the enclosing wall, at the north-east corner of the pyramid, two pits were found, and the second of these proved to be the entrance to a tomb. An inclined brick wall led to a small vaulted door, and in the ruins here the workmen found a small, beautifully worked, gilded wooden statue, on the base of which was inscribed, "Horus, the son of the Sun, of his body, giver of life," [hieroglyphs]. Near the statue were two Canopic jars of alabaster, inscribed with the prenomen of a new king [cartouche] Au-àb-Rā, who it seems was co-regent with Åmen-em-ḥat IV; the nomen of this king was [cartouche] or [cartouche] *Ḥeru*. In the tomb of this king were found:—(1) A magnificent wooden shrine for the statue of the *ka* [hieroglyph] of King Au-àb-Rā or Ḥeru; (2) Statue in wood of the *ka* [hieroglyph] of King Au-àb-Rā, a unique object of highest interest; the execution is simply wonderful; (3) Rectangular alabaster stele with an inscription of King Au-àḅ-Rā in 14 lines; the hieroglyphics are painted blue, etc. In the coffin the wrecked mummy of the king was found.

On February 15th and 16th, 1895, M. de Morgan succeeded in bringing to light, in the necropolis of Dahshûr, a further "find" of jewellery. These beautiful and interesting objects were found in the tombs of the Princesses Ita and Khnemit, which are situated to the west of the ruined pyramid of King Åmen-em-ḥat. By good fortune they had been overlooked by the plunderers of tombs in ancient days, and so both the tombs and the coffins inside them remained in the state in which they had been left by the friends of the deceased more than 4,000 years ago.

17. Ḥelwân, or Helouan-les-Bains.

Hotels.—Grand Hotel, Tewfik Palace Hotel, Hotel des Bains, Al-Ḥayât Hotel. The **Golf Course** and the **Tennis Court** at Ḥelwân are good.

The town of **Ḥelwân** lies about 14 miles to the north of Cairo, and is easily reached by train from the Bâb al-Lûḳ

station in Cairo. It was formerly a Ḳism or quarter of Cairo; in 1917 it had a population of 11,022 inhabitants. It is situated on the right or east bank of the Nile, about three miles from the river, and is nearly opposite the Necropolis of Ṣaḳḳârah on the western bank. It stands on a plain and has limestone hills on two sides of it. The little town owes its fame and prosperity entirely to its salt and sulphur springs, and it is frequented by Europeans and natives who are suffering from any kind of rheumatic and gouty ailment. (*See above*, p. 19.) A good and direct road to the town from Cairo was made under the auspices of Lord Kitchener, and is much used by motorists. The country around Ḥelwân is interesting geologically, and there are several places in the hills and many ravines worth visiting if the traveller has plenty of time to devote to them. Many visitors prefer to visit Ṣaḳḳârah from Ḥelwân rather than from Cairo.

On the east bank of the Nile, at a distance of about five miles from Ḥelwân, are the **Quarries of Ma'ṣarah and Ṭûrah.** These quarries have supplied excellent stone for building purposes for 6,000 years at least. During the Ancient Empire the architects of the pyramids made their quarrymen tunnel into the mountains for hundreds of yards until they found a bed of stone suitable for their work, and traces of their excavations are plainly visible to-day. The Egyptians called the Ṭûrah Quarry Re-au, or Ta-re-au, from which the Arabic name Ṭûrah is probably derived. An inscription in one of the chambers tells us that during the reign of Amenophis III a new part of the quarry was opened. Unȧ, an officer who lived in the reign of Pepi I, was sent to Ṭûrah by this king to bring back a white limestone sarcophagus with its cover, libation stone, etc. The demotic inscriptions which are found in the galleries were examined, and many of them copied, by Dr. Spiegelberg in 1903. He found there the names of Heger and Khnem-Maāt-Rā-setep-en-Khnemu, , and a number of votive texts to the god Miysis, , or *Mau-ḥes*,

18. Muḥammadan Architecture and Art in Cairo.

The **Architecture** and **Art** of the Muḥammadans may be said to have sprung into being when the Arabs ceased to be a purely nomadic people, and when they found it necessary to construct large mosques and tombs, for these two classes of buildings are, after all, the principal sources from which our knowledge of Arab architecture and art is derived. As soon as the Arabs had conquered all Arabia, Syria, and Egypt, and their ruler wished to construct mosques at Damascus, Jerusalem, and Madînah, he applied to the Greek Emperor at Constantinople, who sent him workmen that were skilled in Byzantine architecture and its methods and ornament, and thus it came to pass that the substratum of Arab architecture is of Byzantine origin, and that one of its most important characteristics, namely, the arcade on pillars, is due to this influence. In a very short time, however, the form of the arcade and of its supports was altered, and the decoration used to ornament them soon assumed the character which is the peculiar product of the Arab mind. The religion of the Arabs prevented them from employing figures of men and animals in their architectural works, for the Prophet Muḥammad classed statues with wine, games of chance, and divination by means of arrows, and declared that all these were invented by Satan. This being the case the Arabs were driven to make use of designs of flowers, plants, fruits, &c., which they mingled with intricate leaf compositions and geometrical patterns, harmonizing great detail with a comparatively bold and open treatment of symbols in a way which has won the admiration of the greatest experts in Western Architecture and Art. The forms and shapes of large buildings in Cairo and in other Muḥammadan centres have been greatly modified by the influence of climate as well as of religion. In the first place, the Arab ideal of a beautiful building in a dry and thirsty land was one wherein fountains and gardens were mingled with grand and imposing buildings; and secondly, it followed almost naturally that if this combination were made, the buildings with their enclosures must be square or rectangular, and must contain several covered galleries which would provide both shade and coolness, among which fountains bowered in abundant vegetation might play. One of the principal features of Arab architecture is the naked exterior of the buildings, which strikes the

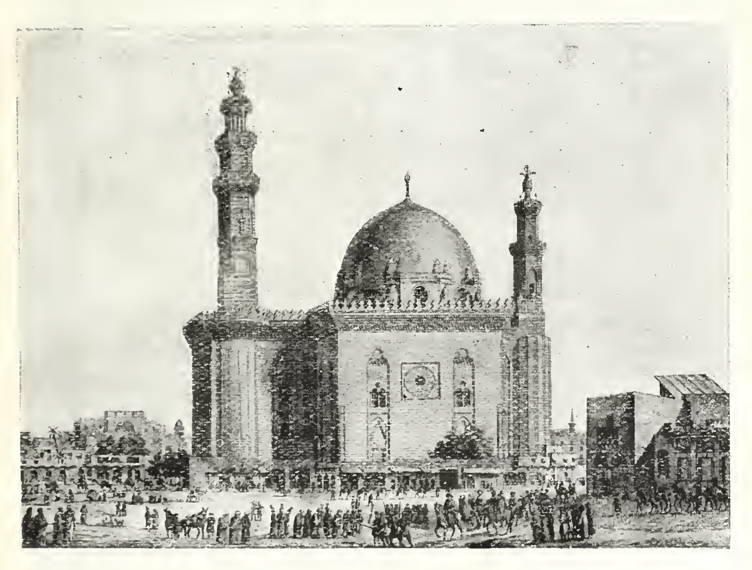
beholder with a sense of bareness and coldness, and it seems as if this feature was specially repeated in order to make the contrast between the exterior and interior of the building more striking. The square capital is another peculiar feature of Arab mosques, tombs, etc., and when we consider this characteristic, which is derived from the Byzantine, in connection with its peculiar decoration, it is impossible to confound an Arab capital with that of any other order of architecture.

The oldest **mosque** in Egypt, that of 'Amr, was founded A.D. 643, but has been frequently restored; it was originally about 75 yards long, and 45 feet wide. Its shape resembled that of the mosque of Madînah, which consisted of a small enclosure of brick; this was partially covered over by a roof made of planks, which were supported on palm trunks plastered over with gypsum. Between 641 and 868 the Mosque of 'Amr was enlarged twice, and it was almost entirely rebuilt by Abd Al-Malik and Walîd, the builders of the Mosques of Jerusalem and Damascus. Mr. Fergusson says (*Architecture*, Vol. II, p. 381): "In its present state it may be considered as a fair specimen of the form which mosques took when they had quite emancipated themselves from the Christian models, or rather when the court before the narthex of the Christian church had absorbed the basilica, so as to become itself the principal part of the building, the church part being spread out into a mere deep colonnade, and its three apsidal altars modified into niches pointing toward the sacred Mecca." For about a century and a half after the rebuilding of the Mosque of 'Amr there is a gap in the history of Arab architecture, and during this period no great building was undertaken in Egypt. In 868 Aḥmad ibn-Ṭûlûn began to build the mosque which is called after his name, and this is preserved in a wonderfully complete state at the present day. It was completed in 878, and consists of a large court surrounded by arcades, which follow the general plan of the Mosque of 'Amr. "The whole style of the mosque shows an immense advance on that of its predecessor, all trace of Roman or Byzantine art having disappeared in the interval, and the Saracenic architecture appearing complete in all its details, the parts originally borrowed from previous styles having been worked up and fused into a consentaneous whole. Whether this took place in Egypt itself during the century and a half that had elapsed is by no means clear; and it is more than

probable that the brilliant Courts of Damascus and Baghdad did more than Egypt towards bringing about the result. At all events from this time we find no backsliding; the style in Egypt at last takes its rank as a separate and complete architectural form." (Fergusson, *Ibid.*, p. 383.) The court of the Mosque of Ibn Ṭûlûn is about 300 feet square; no pillars are used in its construction, except as engaged corner shafts, and all the arches, which are invariably pointed, are supported by massive piers. The court has on three sides two ranges of arcades, and on the Mecca side there are five, but instead of running parallel to the side they run across the mosque from east to west. The general character of the arcades and their ornaments "is that of bold and massive simplicity, the counterpart of our own Norman style. A certain element of sublimity and power, in spite of occasional clumsiness, is common to both these styles. The external openings are filled with that peculiar sort of tracery which became as characteristic of this style as that of the windows of our churches five centuries afterwards is of Gothic style."

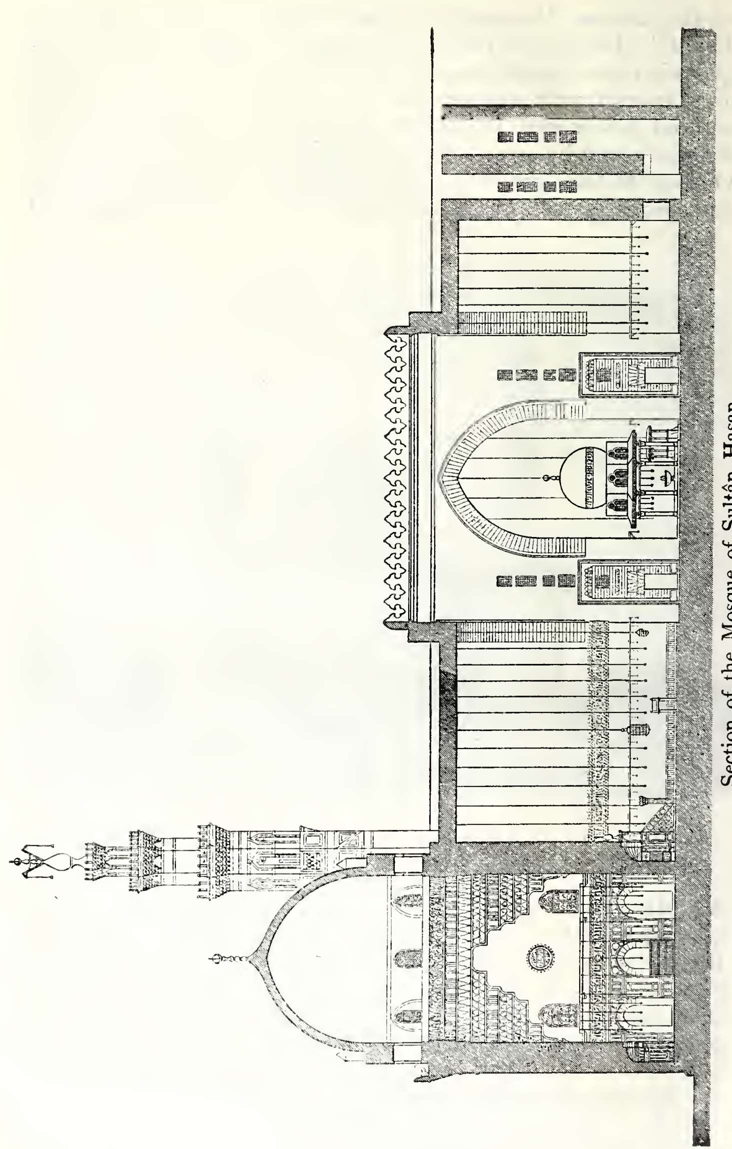
The next great Mosque of Cairo is **Al-Azhar**, *i.e.*, "the splendid," which was begun in 969 and finished in three years under the rule of Al-Mu'izz Ma'add; it shows a great advance in elegance of detail over that of Ibn Ṭûlûn. The **Mosque of Al-Ḥâkim** was finished some 30 years later. Next in point of age come: (1) The tomb-mosque of Aṣ-Sâliḥ, which was built in the reign of Tûrânshâh in 1249; (2) the Mosque of Az-Zâhir Bêbars I, built in 1268; (3) the Mosque of Kalâ'ûn, built in 1279; (4) the Mosque of An-Nâṣir Muḥammad, built in 1318; (5) the Mosque of Kûṣûn, built in 1329; (6) the Mosque of Al-Mâridânî, built in 1339; (6) the Mosque of Aḳsunḳur, built in 1347; (7) the Mosque of Sulṭân Ḥasan, built in 1356; and (7) the **Mosque of Barḳûḳ**. In the last-named building the pointed arch is used "with as much lightness and elegance as ever it reached in the West. The dome has become a truly graceful and elaborate appendage, forming not only a very perfect ceiling, but a most imposing ornament to the exterior. Above all, the minaret has here arrived at as high a degree of perfection as it ever reached in any after-age." The **Mosque of Sulṭân Ḥasan** is one of the most remarkable mosques which has ever been erected in any country. Its appearance is bold and massive on every side, and "the building has all the apparent solidity of a fortress, and seems more worthy of the descendants

of the ancient Pharaohs than any work of modern times in Egypt." Instead of the usual arcades we see here that one gigantic niche opens in each face of the court; all four niches are covered with simple tunnel vaults of a pointed form, without either ribs or intersections, and for simple grandeur are unrivalled by any similar arches known to exist anywhere. One of its two minarets is the highest and largest in Cairo, and probably in any part of the world. The **Mosque of**

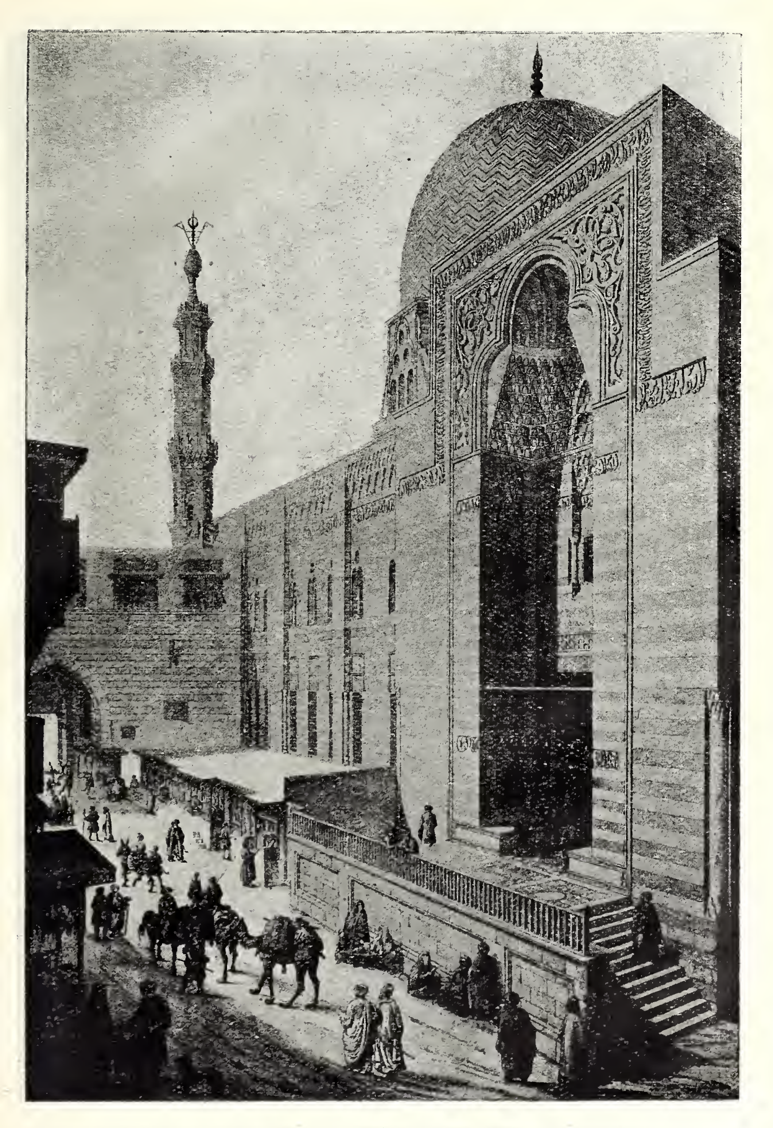


The Mosque of Sulṭân Ḥasan.

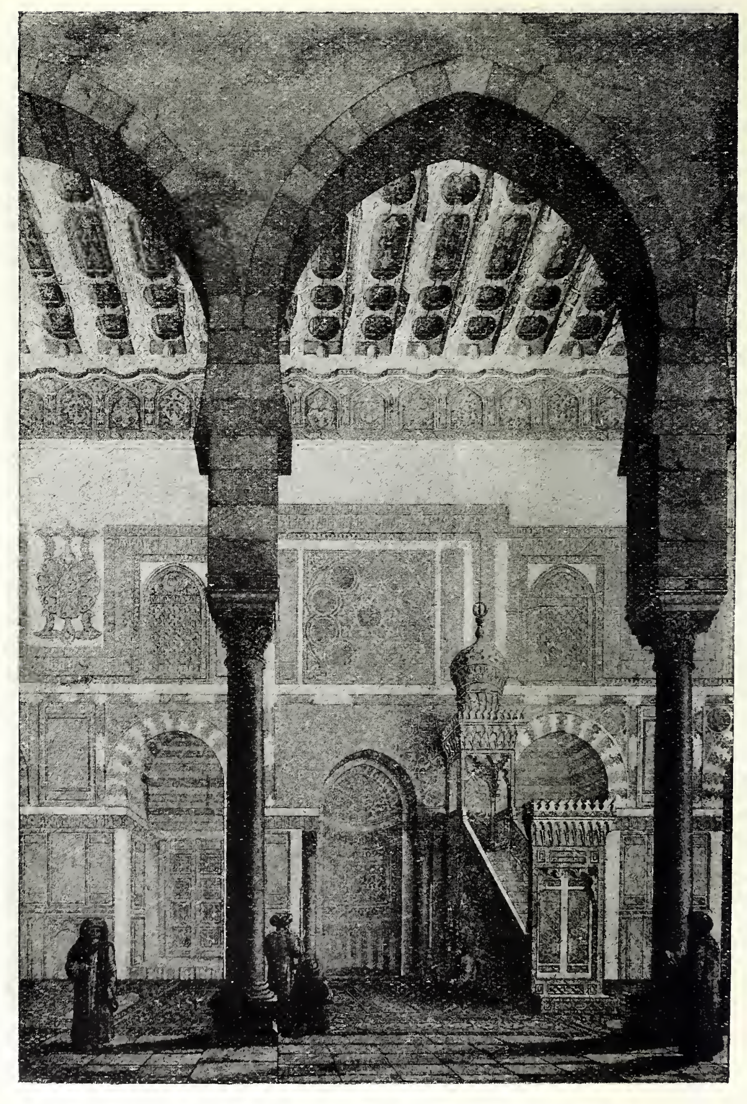
Al-Mu'ayyad, which was built in 1420, is a fine example of a mosque with columns, and the **Tomb-Mosque of Ḳâ'it Bey,** outside the walls of the city of Cairo, is perhaps the most graceful of all this class of building in Egypt. It has been rightly described as a "perfect model of the elegance we generally associate with the architecture of this people, and it is perhaps unrivalled by anything in Egypt, and far surpasses the Alhambra or the other Western buildings of its age." Another authority on Saracenic Art, Mr. Stanley Lane-Poole, believes that in this building we see the dome and minaret in



Section of the Mosque of Sulṭân Ḥasan.



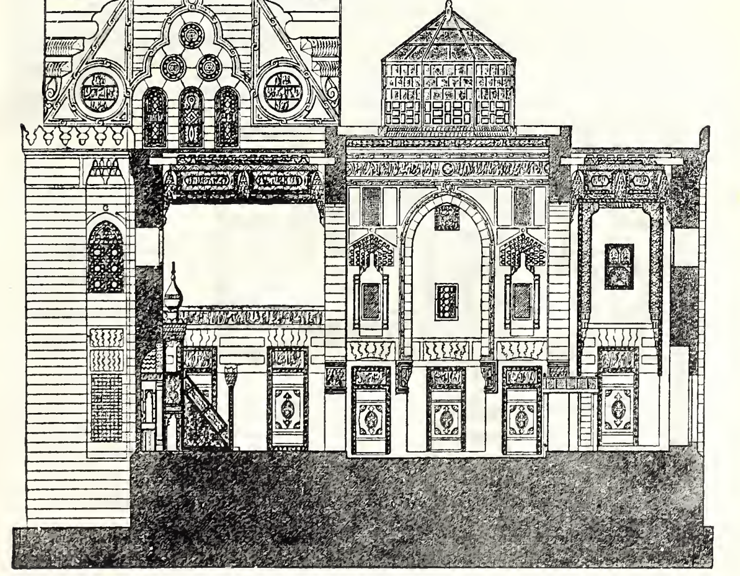
The Mosque of Al-Mu'ayyad.



The Niche and Pulpit in the Mosque of Al-Mu'ayyad.

their utmost perfection, and the proportions of the cruciform mosque most admirably displayed.

The sanctuary of a mosque, or *lîwân*, is on the Mecca side of the building, and its most important parts are: (1) The *mihrâb*, which indicates the *ḳiblah* or direction of Mecca towards which the Muḥammadans pray; (2) the *mimbar*, or pulpit, from which the weekly address on Friday is delivered; (2) the *dikka*, or tribune, from which the prayers and the chapters of the Ḳur'ân are read; and (4) a seat for the shêkh. Lamps are suspended from



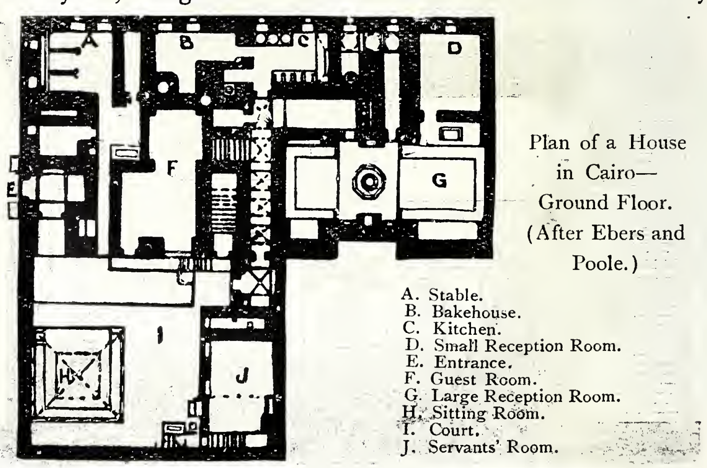
Section of the Mosque of Ḳâ'it Bey.

the roofs, the walls are ornamented with passages from the Ḳur'ân, and outside, but quite near the mosque, is a fountain.

The following are the principal mosques which still exist in Cairo:—*

Mosque of	Built A.D.	Mosque of	Built A.D.
'Amr	641	Aḳsunḳur ...	1347
Ibn-Ṭûlûn ...	878	Sheykhû ...	1355
Al-Azhar ...	971	Suyurghatmish ...	1356
Al-Ḥâkim ...	990–1012	Sulṭân Ḥasan ...	1356
Ash-Shâfi'y ...	1211	Umm Sha'bân ...	1368
Aṣ-Ṣâlih... ...	1249	Barḳûḳ	1384
Adh-Dhâhir ...	1268	Barḳûḳ (in the cemetery) ...	1405–1410
Kalâ'ûn... ...	1279	Al-Mu'ayyad ...	1420
An-Nâṣir ...	1298	Al-Ashraf Bars-Bey	1423
Beybars II ...	1306	Al-Ashraf Inâl ...	1456
An-Nâṣir (in the Citadel) ...	1318	Ḳâ'it Bey ...	1472
Singar Al-Gâwaly and Salâr ...	1323	Kigmâs	1481
Al-Mâridâny ...	1339	Ezbek	1499
Mosque and Tomb-Mosque of Ghôrîyah ...	1503		

The **houses of Egypt** and Syria consist of series of rooms which are built in two or three storeys round a rectangular courtyard; the greater number of the windows in each storey



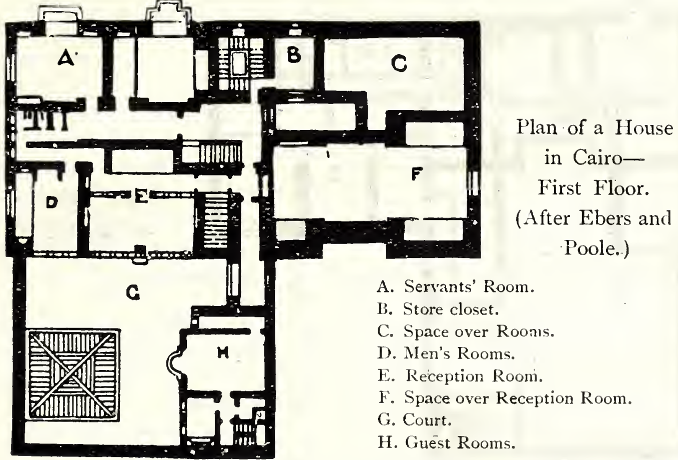
Plan of a House in Cairo—Ground Floor. (After Ebers and Poole.)

A. Stable.
B. Bakehouse.
C. Kitchen.
D. Small Reception Room.
E. Entrance.
F. Guest Room.
G. Large Reception Room.
H. Sitting Room.
I. Court.
J. Servants' Room.

look into the courtyard, and every window, whether it looks into the courtyard or into the street, is provided with high

* *See* Lane-Poole, *Art of the Saracens*, p. 86.

blinds of lattice work. The Arab in his house loves privacy, and he spares no pains in building passages with sharp bends in them to prevent the prying of inquisitive eyes, and he endeavours to prevent the women and girls in his house both from seeing strangers and being seen by them. The projecting windows which form such an important characteristic of Arab houses have their openings carefully covered over with wooden shutters and with blinds made of wood, and if they are glazed the glass is either painted or allowed to become so dirty that it is almost impossible to obtain a clear view of what is going on in the street through it. Speaking generally, the outer walls of the house are not ornamented, but the layers of stone in the lower courses are often coloured red and white alternately.



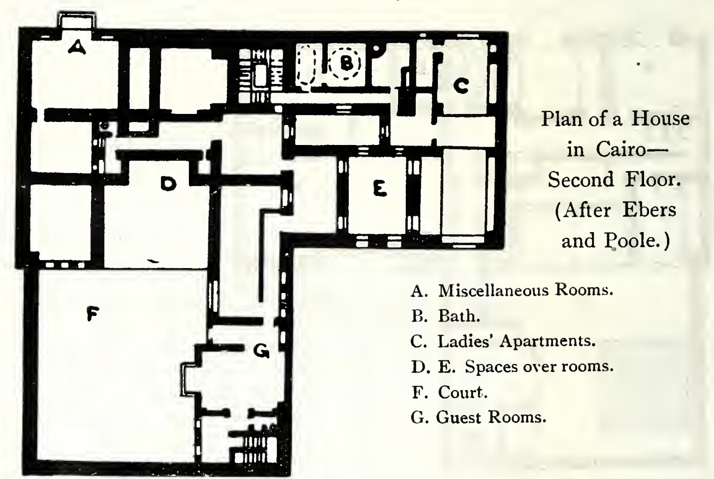
Plan of a House in Cairo—First Floor. (After Ebers and Poole.)

A. Servants' Room.
B. Store closet.
C. Space over Rooms.
D. Men's Rooms.
E. Reception Room.
F. Space over Reception Room.
G. Court.
H. Guest Rooms.

The doors of the houses which were built from 70 to 100 years ago are often beautifully ornamented, and the stone arches above them are frequently carved with intricate and delicate designs. A short passage leads the visitor into the courtyard of the house, where there is often a tree by the side of a well, or even several trees. The rooms which are on the ground floor are devoted chiefly to the servants and the male occupants of the house, and among them is the chamber in which male visitors are received. The floor of one portion of this room is higher than the rest, and on it are laid carpets and cushions or mattresses on which the visitors are expected to sit cross-legged. Sometimes long, low, wooden benches, with arms and backs, are arranged along each side of this room, and on

these the cushions are placed. The walls above the cushions are often only limewhitened or distempered red or some shade of blue or green; usually there are a number of small niches in them, with shelves, and these take the place of cupboards with us.

Wealthy folk have their walls panelled with wood, inlaid with bone or ivory, mother-of-pearl, etc., and the roof and beams are often inlaid and painted. On one side of such a room there are often several windows, and there is generally a window at the end which faces the door. The visitors sit or recline on the cushions, and if they are partaking of a meal they group themselves round the tray of food which is placed on a low stand; in some houses in Egypt strict attention is paid



Plan of a House in Cairo—Second Floor. (After Ebers and Poole.)

A. Miscellaneous Rooms.
B. Bath.
C. Ladies' Apartments.
D. E. Spaces over rooms.
F. Court.
G. Guest Rooms.

to the position in a room which a visitor is invited to take. If he is an honoured or a very welcome guest he is invited to sit up at the end of the room near the master of the house; if he is not he takes his seat near the door. The floor of the room near the door is lower than the portion on which the visitors sit, and it is here that they leave their shoes or sandals before they walk up on to the carpets. In a house of two or three storeys the rooms of the *harîm*, *i.e.*, the women's apartments, are on the upper floor or floors, and here the women of the household live with their servants, often in very considerable comfort. The husband and sons often have their rooms on this same floor, and there is also a guest room, which can be

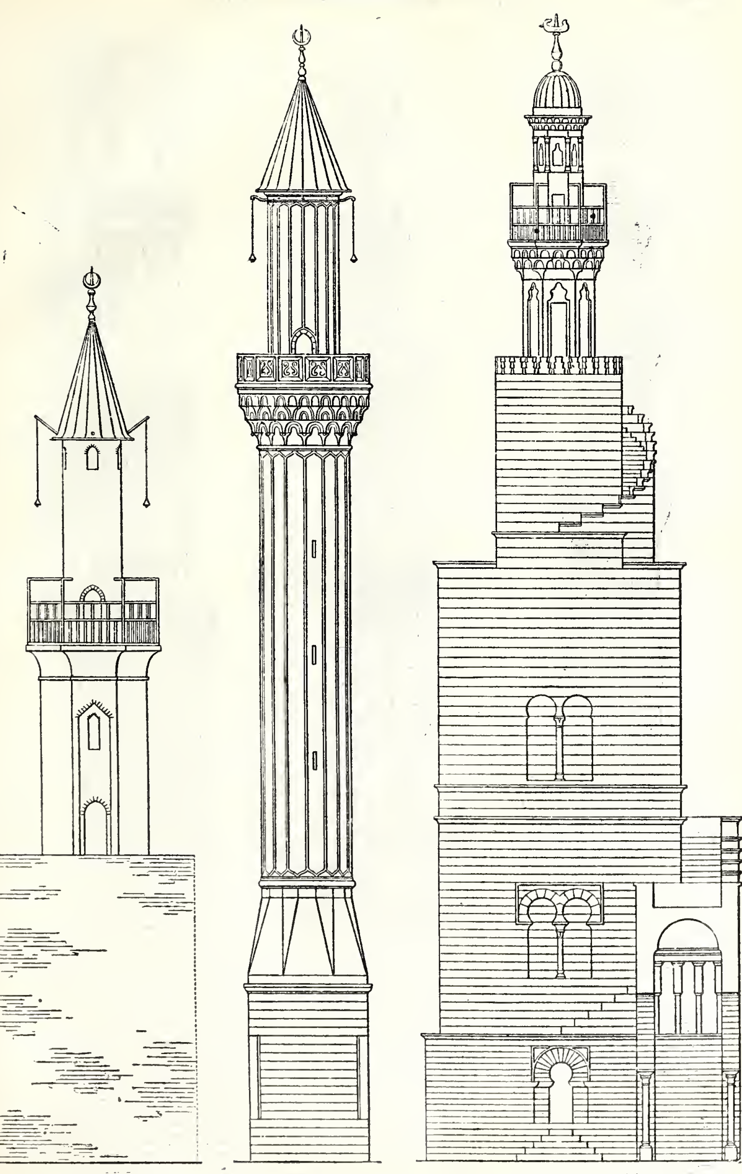
turned into a bedroom by night by bringing into it a few cushions, a pillow, and a padded blanket. The houses even of the best Arabs have little furniture in them, and almost any chamber can be turned into a reception room, or a dining room, or a bedroom, in half-an-hour.

All the ornamentation of the older houses is in good taste, but in recent years the cheap wall-mirrors and tawdry coloured glass vases, and hideous oleographs, which are exported to Egypt by civilized nations, have become common, and the signs of a refined and cultivated taste are rapidly disappearing under Western influence. The arrangement of the rooms on the third storey is much the same as of those on the second, but they are usually much smaller in size, and are occupied by the least important female members of the household. The roofs are flat, and the inmates of the houses bring up their cushions and sleep in the open air during several months of the year. On the roof of every house of a certain size will be seen a sloping construction made of wood, the open part of which always faces the north. The object of this is to catch the north wind, and to conduct it down a passage or flight of stairs into the house. Sometimes it is made large enough for people to sit in. In the construction of dwelling-houses there seems to be no hard-and-fast rule, and the above remarks must be taken to refer to a comfortable house such as a middle-class family would live in. Wealthy folk usually live in houses which stand each in its own garden or grounds, which are planted with trees, and have tiled walks and fountains, raised balconies, etc., and in such cases the decoration of the interiors of the rooms, and of the doors, doorways, etc., is extremely fine.

The European who is interested in architecture in general, and is accustomed to admire the work of Western architects, will probably be disappointed with the mosques and tomb-buildings of the Muḥammadans in Cairo. Different reasons for this have been urged by different writers, but the most conclusive, probably, are those which are described by Mr. Stanley Lane-Poole, in his *Art of the Saracens*, where he says (p. 83), "The Saracen builders do not seem to have been possessed with an architectural idea; the leading consideration with them seems to have been not form, but decoration. For the details of the decoration it is impossible to feel too much admiration; they are skilfully conceived and worked out with remarkable patience, honesty, and artistic feeling. But the form, of which

they are the clothing, seems too often to want purpose; there is a curious indefiniteness about the mosques, a want of crown and summit, which sets them on a much lower level than the finest of our Gothic cathedrals. It is perhaps unfair to judge of them in their more or less ruinous state; yet their present picturesque decay is probably more effective than was the sumptuous gorgeousness of their colours and ornament when new. The want of bold relief in the ornament is one of the most salient defects to us of the north: we find the surfaces of the mosque exteriors flat and monotonous. The disregard of symmetry is another very trying defect to eyes trained in other schools of architecture; the windows, minarets, etc., are scattered with no sense of balance; and the dome, instead of crowning the whole edifice, covers a tomb at the side of the building, and thus infallibly gives it a lop-sided aspect. It is chiefly to the grace of their **minarets**, the beauty of their internal decoration, and the soft effects of the Egyptian atmosphere upon the yellowish stone of which they are built that the mosques of Cairo owe their peculiar and indestructible charm. A charm they have undoubtedly, which is apparent and fascinating to most beholders; but it is due, I believe, to tone and air, to association, to delicacy and ingenuity of detail, and not to the architectural form. . . . Nevertheless, when all has been said, the mosques and older houses of Cairo possess a beauty of their own which no architectural canons can gainsay. The houses in particular, by their admirable suitableness in all respects to the climate of Egypt, their shady, restful aspect, and subdued light, must take a high place among the triumphs of domestic architecture. We may detect a lack of meaning in this feature and in that, but we are forced to admit that the whole effect is soft and harmonious, sometimes stately, always graceful, and that the Saracenic architecture of Cairo, whatever its technical faults, is among the most characteristic and beautiful forms of building with which we are acquainted."

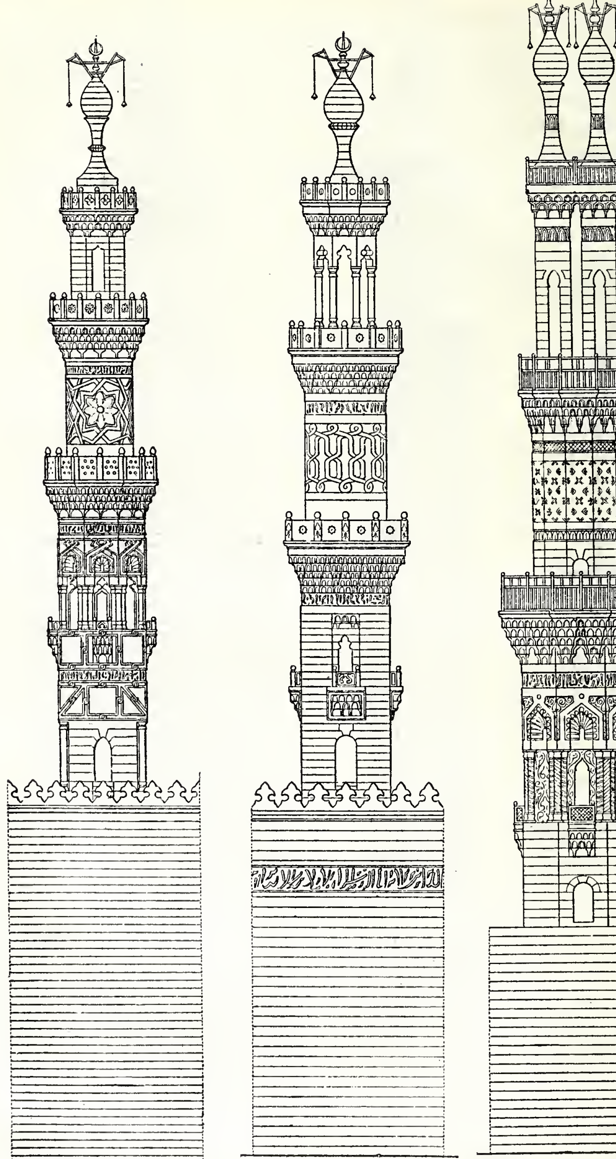
The **art** of the Muḥammadans expresses itself chiefly in the ornamentation of surfaces, which it covers with intricate and beautiful designs. One of the oldest forms of decoration is the plaster frieze, which was worked with a tool when moist, and was not cast; for about 600 years (640–1320) designs in plaster were commonly employed in the ornamentation of great mosques, and then plaster work was abandoned in favour of carved stone or marble. In stone, as in plaster, the floral *motif* predominates, but the designs in stone are far less



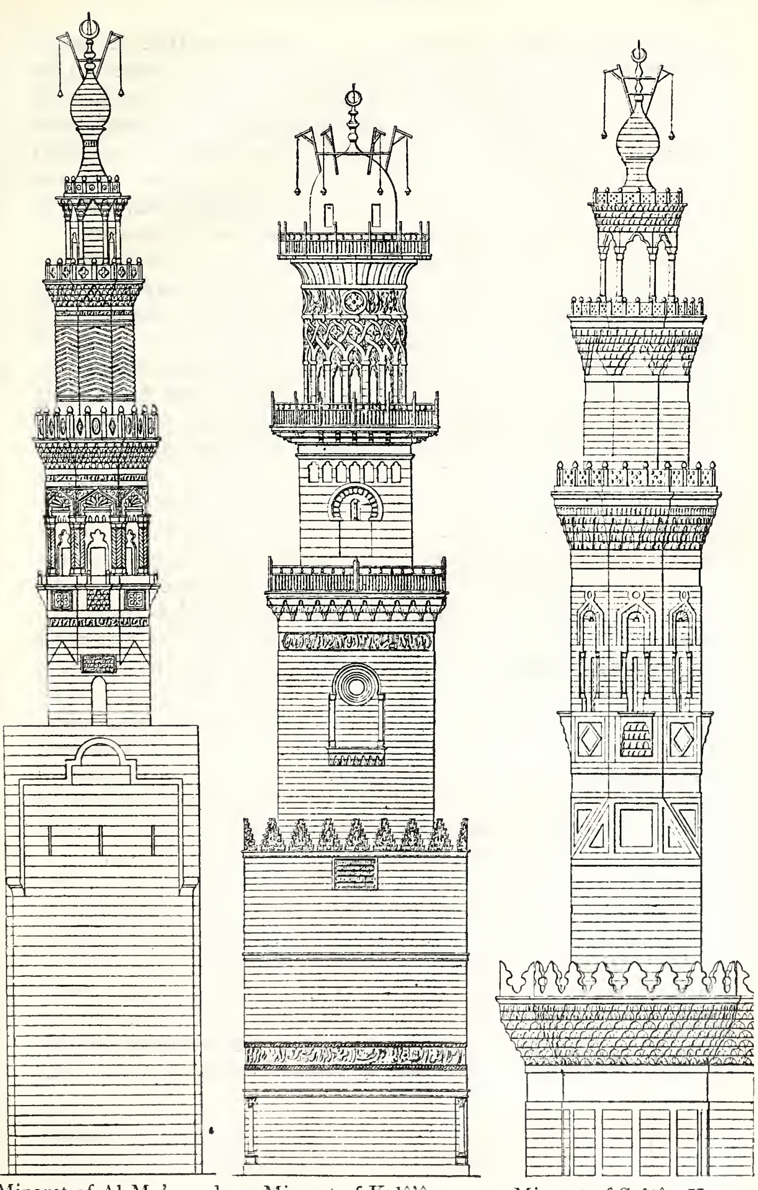
Minaret of ʻAmr.

Minaret of Iskandar Pâshâ.

Minaret of Ibn Tûlûn.



Minaret of Ḳâ'it Bey. Minaret of Barḳûk. Minaret of Al-Azhar.



Minaret of Al-Mu'ayyad. Minaret of Kalâ'ûn. Minaret of Sulṭân Ḥasan.

intricate than those in plaster. The **stone pulpit** set up in 1483 by Kâ'it Bey in the Mosque of Barkûk is believed to be "the most splendid example of stone chiselling that can be seen in Cairo," and the finest geometrical ornament and pure arabesque work belong to this period. The Wakkâlah or Khân built by Kâ'it Bey on the south side of Al-Azhar Mosque was beautifully ornamented with designs of every kind, and the front of it, which faces the mosque, still exhibits a fine variety.* The stalactite or pendentive bracketing, which is so marked a characteristic of Saracenic art, is also well displayed in the Mosque of Kâ'it Bey. Its first and principal use is for masking the transition from the square of the mausoleum to the circle of the dome. The pendentive was speedily adopted by the Arabs of Egypt in a great variety of shapes, and for almost every conceivable architectural and ornamental purpose; to effect the transition from the recessed windows to the outer plane of a building; and to vault, in a similar manner, the great porches of mosques, which form so grand a feature characteristic of the style. All the more simple woodwork of dwelling-houses was fashioned in a variety of curious patterns of the same character; the pendentive, in fact, strongly marks the Arab fashion of cutting off angles and useless material, always in a pleasing and constructively advantageous manner.† The **mosaic work** of the Muhammadans appears to have been borrowed from the Copts; it is unlike any mosaic work known in Europe, and is highly characteristic, and often very beautiful. Pieces of marble or hard stones of different colours, small plaques of porcelain, and pieces of mother-of-pearl are arranged in geometrical patterns, and are set in plaster. Certain portions of mosques are ornamented with mosaic work, and mosaic pavements are not uncommon.

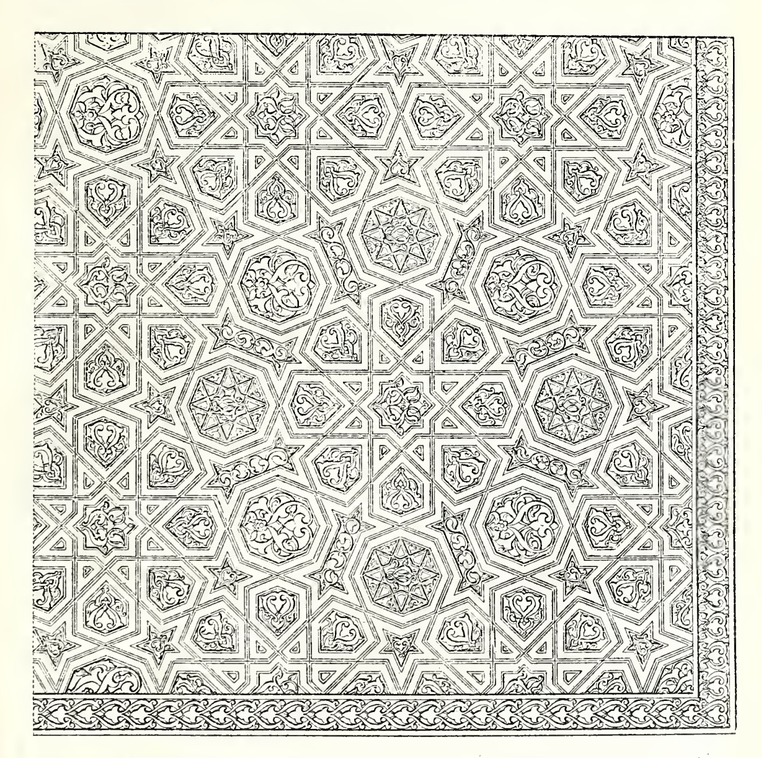
Like the ancient Egyptians, the modern inhabitants of the country were skilled **workers in metal**, and whether in chasing or engraving, or inlaying with gold, silver, or copper, the best artists have produced most beautiful specimens of their handicraft. The designs which are inlaid in metal panels, lamps, bowls, caskets, tables, etc., are chiefly of a geometrical and floral character, and are remarkable alike for their beauty and their continuity; the best examples belong to the four-

* Casts of a number of these, made from paper squeezes taken by Mr. Stanley Lane-Poole, are to be seen in the Victoria and Albert Museum.

† See E. Stanley Poole in Lane's *Modern Egyptians*, 5th edit., pp. 586–588.

teenth century, and suggest that they were developed from a system of ornamentation which was introduced into Egypt from the East by way of Baghdad and Damascus.

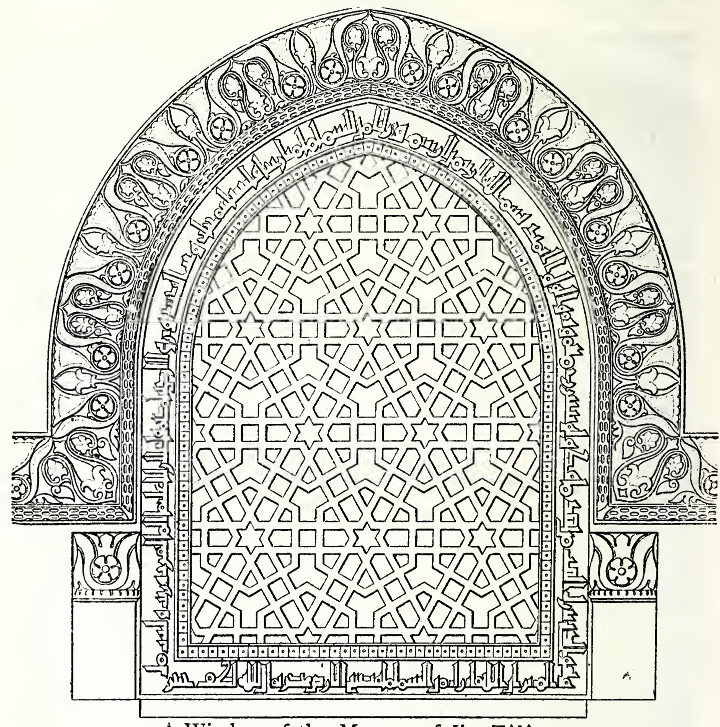
The arts of **wood-carving** and ivory-inlay work appear to have been borrowed from the Copts, in whose churches carved panels and panels inlaid with ivory were well known before the conquest of Egypt by the Arabs.



Panel from the Pulpit in the Mosque of Ibn Ṭûlûn.

Glass-making is an art which was practised in Egypt in very early times, well-known examples of glass objects being the opaque blue glass vase inscribed with the prenomen of Thothmes III, and the glass vessels from the tomb of Åmen-ḥetep II, now in the British Museum. The earliest examples of Muḥammadan glass objects in Egypt are the

glass coin standards, which are stamped with the names of Egyptian governors who ruled by the grace of the Khalîfahs of Damascus and Baghdad in the eighth, ninth, and eleventh centuries of our era. In the eleventh century there seems to have been a glass lamp market near the Mosque of 'Amr, and in the fourteenth century the art of glass-making reached its highest pitch of perfection. The oldest Arab



A Window of the Mosque of Ibn Ṭûlûn.

glass vessel known is said to be in the collection of M. Charles Schefer; it was made before 1277 for Badr ad-Dîn. Muḥammadan glass-workers excelled in the making of lamps for mosques, and these show that their makers were tolerably expert glass-blowers, and could produce vessels of considerable size; but the glass is of bad colour, and full of bubbles and imperfections. The makers had learned, probably from the Byzantines, the art of gilding and enamelling glass, and made

much use of it. Inscriptions in large characters are favourite ornaments; figures of birds, animals, sphinxes and other monsters are found. The outlines are generally put on in red enamel, the spaces between being often gilt. The enamels are used sometimes as grounds, and sometimes for the ornaments; the usual colours are blue, green, yellow, red, pale red, and white.* A fine collection of more than 60 enamelled glass lamps is exhibited in the National Museum of Arab Art in Cairo, and it is thought that they were all made in Egypt.

The art of making **pottery** of a high class has died out in Egypt, and it is now only represented by the porous water-bottles which are made in Upper Egypt, and by the red-glazed cups, jugs, etc., which are made at Asyûṭ. This is a curious fact, especially when we remember that the potters of the Pre-Dynastic Period were past-masters in their craft, and that in the eleventh century of our era the potters of Cairo were famous for the delicateness of their vessels, the gracefulness of their shapes and forms, and the beauty of the iridescent glaze with which they were sometimes covered. Glazed porcelain tiles were largely used for mosques and other buildings in the Middle Ages in Cairo, but experts are not agreed as to which exactly were home made, and which were imported from Damascus. A good specimen of modern tile-work, on which the Ka'abah at Mecca is represented in perspective, is No. 167, Room 6, of the National Museum of Arab Art at Cairo. Finally, those who wish to gain an idea of Muḥammadan art as illustrated by the writing and binding of **manuscripts** should visit the Khedivial Library and the Museum of Arab Art. In the former building there have been collected the fine illuminated copies of the Ḳur'ân which originally belonged to the chief mosques of Cairo. The oldest of these is written in the Cufic, or Kûfî, character; the titles of the chapters are ornamented with gold, and there are several coloured letters in the text. It is said to have been written by Ja'far Aṣ-Ṣâdiḳ, who lived early in the eighth century, but, although the book is undoubtedly very old, no one believes this story. From an artistic point of view the Ḳur'âns which were written in the fourteenth and fifteenth centuries are more interesting. The characters of the copy written for Muḥammad An-Nâṣir are all gilded, and the opening pages of that written for Khamend Baraka in the

* Nesbitt, A., *Descriptive Catalogue*, p. lxiv.

769th year of the Hijrah contain wonders of illumination and penmanship. Very beautiful work, both as regards writing and decoration, is found in some of the small copies of the Kur'ân, which were carried as amulets by pious Muslims. Examples of these appear from time to time, and they are always instructive. These little books are about 3 inches square, and the text is written on very fine leaves of vellum in good black ink. The diacritical marks and vowels are often added in inks of various colours, and the titles of the chapters are in gold. At the beginning of the book pictures of the Ka'abah at Mecca and other objects sacred to the Muhammadans are given in well-chosen artistic colours. A Kur'ân amulet often takes the form of a beautifully illuminated vellum roll about 2½ inches wide and several feet in length. The case in which such an amulet is carried is usually made of silver, inscribed with sacred names and richly carved.

The **bindings** of many Arab MSS. are beautiful pieces of work, but they have, of course, all the characteristics of Saracenic ornamentation, and many find the minute designs and all their intricacies disappointing and fatiguing to the eye. Designs with polygonal figures are often employed, and the arabesques appear frequently. According to some authorities a change came over the binder's art when the Turks conquered Egypt, and the native industry perished. The Turks abandoned the polygonal design and the arabesque, and introduced a series of ornaments, the Persian origin of which was proclaimed by their naturalistic *motifs*. The next step was to make use of a mould-stamp for the cover, and designs now became filled with figures of men and animals; at a later time designs were pinked out, and portions of the leather were gilded or coloured according to the somewhat garish taste of the workman. The varnished bindings appear to be of Persian origin, and they do not in any case concern us, for they are too modern. At the present day fine binding is a lost art in Egypt.

EXCURSIONS FROM CAIRO.

I. The Fayyûm.

Messrs. Thos. Cook & Son have arranged **Eight-day** and **Six-day Excursions** to the Fayyûm on camels, camping out each night in the desert, and returning from Madînat al-Fayyûm, the chief town of the province, by train. The route is as follows :—

First Day.—Start from Gîzah Pyramids for Ṣaḳḳârah and Dahshûr. (Camp.)

Second Day.—To Umm al-Dtal. (Camp.)

Third Day.—To Ṭâmîyah. (Camp.)

Fourth Day.—To Lake Ḳarûn. (Camp.)

Fifth Day.—Sail on Lake Ḳarûn, and ride to Sannures. (Camp.)

Sixth Day.—At Sannures and ride to Madînat al-Fayyûm.

Seventh Day.—Ride to Ḥawârah and Lahûn and back.

Eighth Day.—Train from Madînat al-Fayyûm to Cairo.

The Six-day Excursion reaches Lake Ḳarûn on the second day, but to do this the traveller must ride from eight to ten hours each day ; this entails considerable fatigue and is not recommended for ladies. Beyond Lake Ḳarûn the Itineraries are identical.

Information as to fares, days of starting, etc., may be obtained from the Cairo office, or any other office, of Messrs. Thos. Cook & Son.

THE visitor to the Fayyûm leaves the main line at Al-Wasṭah, with about 3,388 inhabitants ; for the stations on the line, *see* pp. 353, 354. The line from Wasṭah runs westwards, and its terminus is at **Madînat al-Fayyûm**, with 44,400 inhabitants, a large Egyptian town situated a little distance from the site of **Arsinoë** in the Heptanomis, called **Crocodilopolis** by the Greeks, because the crocodile was here worshipped. The city was one of great importance under Ptolemy II, and it became virtually the Greek capital of Upper Egypt, and was actually regarded as a nome. The Egyptians called the Fayyûm Ta-she "the lake district," and the name Fayyûm is the Arabic form of the Coptic Phiom, "the water." The Fayyûm district has an area of about 850 square miles, and is watered by a branch of the Nile called the Baḥr-Yûsuf, which flows into it through the Libyan mountains. On the west of it lies the **Birkat al-Ḳurûn.** This now fertile land is thought to have been reclaimed from the desert by Åmen-em-ḥat III, a king of the XIIth dynasty.

The Birkat al-Ḳurûn is formed by a deep depression in the desert scooped out of the Parisian limestone, which has become covered in great part by thick belts of salted loams and marls. On these Nile mud has been deposited. The Birkat al-Ḳurûn is all that is left of the ancient **Lake Moeris**, and its water surface is about 130 feet below sea level. Its cubic contents are estimated at 1,500,000,000 of cubic metres.

According to Pliny (v, 9), Lake Moeris was 250 miles (Mucianus says 450 miles) in circumference, and 50 paces deep; and its functions are thus described by Strabo (xvii, 1, § 37): "The Lake Moeris, by its magnitude and depth, is able "to sustain the superabundance of water which flows into it at "the time of the rise of the river, without overflowing the "inhabited and cultivated parts of the country. On the "decrease of the water of the river, it distributes the excess by "the same canal at each of the mouths; and both the lake "and the canal preserve a remainder, which is used for "irrigation. These are the natural and independent properties "of the lake, but in addition, on both mouths of the canal are "placed locks, by which the engineers store up and distribute "the water which enters or issues from the canal." The Baḥr-Yûsuf is said by some to have been excavated under the direction of the patriarch Joseph, but there is no satisfactory evidence for this theory; strictly speaking, it is an arm of the Nile, which has always needed cleaning out from time to time, and the Yûsuf, or Joseph, after whom it is named, was some Muḥammadan ruler of Egypt. Herodotus says (ii, 149) of Lake Moeris, "The water in this lake does not spring "from the soil, for these parts are excessively dry, but it is "conveyed through a channel from the Nile, and for six "months it flows into the lake, and six months out again into "the Nile. And during the six months that it flows out it "yields a talent of silver (£240) every day to the king's "treasury from the fish; but when the water is flowing into "it, twenty minæ (£80)." That Lake Moeris was believed to have been artificially constructed is evident from the writings of many ancient writers, and Herodotus says, "That "it is made and dry, this circumstance proves, for about "the middle of the lake stand two pyramids, each rising "50 orgyæ above the surface of the water, and the part built "under water extends to an equal depth; on each of these is "placed a stone statue, seated on a throne." The pyramids here referred to can be no other than the pedestals of two

large sandstone statues of Åmen-em-ḥat III, which were set up either close by or in Lake Moeris; remains of these were found at **Biyahmû**, with 3,918 inhabitants, by Dr. Lepsius, and later by Professor Petrie also. On the other hand, it has been proved recently by Sir H. Brown that there never was a Lake Moeris, and that what Herodotus saw and thought was a lake, was merely the Nile-flood, the "containing walls of the lake" being only the dykes which separated the basins from each other. Thus, it seems, we must give up our belief in the existence of Lake Moeris.

The **Pyramid of Ḥawârah**, about five miles from Madînat al-Fayyûm, was the tomb of **Amen-em-ḥat III**, and his daughter Ptaḥ-nefert; it is built of sun-dried bricks, and even now is of considerable size. It was entered in 1890 on the south side by Professor Petrie, who discovered the mummy chamber; the remains of what must have been the funerary temple were also found near the entrance. The **Labyrinth** stood on the banks of Lake Moeris, and some have identified the ruins of the funerary temple of Åmen-em-ḥat with it. Strabo (xvii, 8, § 37) declared that the tomb of the king who built the Labyrinth was near it, and describes it thus: "After proceeding "beyond the first entrance of the canal about 30 or 40 stadia, "there is a table-shaped plain, with a village and a large palace "composed of as many palaces as there were formerly nomes. "There are an equal number of aulæ, surrounded by pillars, "and contiguous to one another, all in one line, and forming "one building, like a long wall having the aulæ in front of it. "The entrances into the aulæ are opposite to the wall. In "front of the entrances there are long and numerous covered "ways, with winding passages communicating with each other, "so that no stranger could find his way into the aulæ or out of "them without a guide. The surprising circumstance is that "the roofs of these dwellings consist of a single stone each, "and that the covered ways through their whole range were "roofed in the same manner with single slabs of stone of "extraordinary size, without the intermixture of timber or of "any other material. On ascending the roof—which is not of "great height, for it consists only of a single story—there may "be seen a stone-field, thus composed of stones. Descending "again and looking into the aulæ, these may be seen in a "line supported by 27 pillars, each consisting of a single stone. "The walls also are constructed of stones not inferior in size to "them. At the end of this building, which occupies more

" than a stadium, is the tomb, which is a quadrangular pyramid, " each side of which is about four plethra (*i.e.*, about 404 feet) " in length, and of equal height. The name of the person " buried there is Imandes [Diodorus gives Mendes or Marrus]. " They built, it is said, this number of aulæ, because it was the " custom for all the nomes to assemble there according to their " rank, with their own priests and priestesses, for the purpose " of performing sacrifices and making offerings to the gods, and " of administering justice in matters of great importance. Each " of the nomes was conducted to the aula appointed for it." The account given by Herodotus (ii, 148, Cary's translation) is as follows:—

" Yet the labyrinth surpasses even the pyramids. For it has " 12 courts enclosed with walls, with doors opposite each other, " six facing the north, and six the south, contiguous to one " another; and the same exterior wall encloses them. It con- " tains two kinds of rooms, some under ground and some " above ground over them, to the number of 3,000, 1,500 " of each. The rooms above ground I myself went through, " and saw, and relate from personal inspection. But the " underground rooms I only know from report; for the " Egyptians who have charge of the building would on no " account show me them, saying, that there were the sepulchres " of the kings who originally built this labyrinth, and of the " sacred crocodiles I can therefore only relate what I have " learnt by hearsay concerning the lower rooms; but the upper " ones, which surpass all human works, I myself saw; for the " passage through the corridors, and the windings through the " courts, from their great variety, presented a thousand occa- " sions of wonder as I passed from a court to the rooms, and " from the rooms to halls, and to other corridors from the " halls, and to other courts from the rooms. The roofs of " all these are of stone, as also are the walls; but the walls are " full of sculptured figures. Each court is surrounded with " a colonnade of white stone, closely fitted. And adjoining " the extremity of the labyrinth is a pyramid, 40 orgyæ (about " 240 feet) in height, on which large figures are carved, and a " way to it has been made under ground." The existence of the Labyrinth in Egypt has also been disproved, for it has been shown that the buildings which Herodotus regarded as a temple were, in reality, the town which had grown up in connection with the construction and maintenance of the pyramids close by.

The Pyramid of **Al-Lâhûn** was entered by Mr. W. Fraser, who found it to be the tomb of Usertsen II; like the Pyramid of Ḥawârah, it is built of sun-dried bricks. In 1914 Prof. Petrie found, near the Pyramid of Usertsen II at Al-Lâhûn, the tomb of an Egyptian Princess containing most beautiful jewellery of the same kind as that discovered by Mr. J. de Morgan at Dahshûr. With the exception of the pieces kept by the Egyptian Museum in Cairo, the whole "find" was sold by its discoverer to the Metropolitan Museum of New York, where it now is.

The **Birkat al-Ḳurûn,** which lies a few miles to the north-west of Madînat al-Fayyûm, is the **Lake Moeris** of the Greeks. It has a surface of 2,500 square kilometres; its waters are about 130 feet below sea-level, and are brackish to the taste. A few miles to the east of the lake stood the towns of **Karanis** and **Bacchias,** the ruins of which have been excavated by Mr. D. G. Hogarth and Dr. Grenfell, and to the north are the ruins of the town of **Dimah**; all these appear to have been founded in Ptolemaïc times, but probably on the sites of old Egyptian towns. The ancient god of the whole district was **Sebek,** at one time a solar deity, who became incarnate in the crocodile. A little to the south-west of the lake is **Ḳaṣr Ḳurûn,** *i.e.*, the remains of a small Egyptian temple of the Ptolemaïc Period; it was dedicated to Ȧmen-Rā, who became incarnate in a species of ram. The whole district of the Fayyûm is one of considerable archæological interest, and a careful examination of it would certainly result in the discovery of ruins now unknown. It is, however, unlikely that any very ancient remains will be found there, *i.e.*, earlier than the XIIth dynasty, but a great deal of information for the Ptolemaïc and Roman Periods will probably be obtained. This view is very fully borne out by the discoveries of papyri fragments which have been made by Messrs. Grenfell and Hunt in recent years, for they have brought to light a large number of business documents and correspondence, to say nothing of fragments of theological and classical works. Recently the old view that the village of Ḥawârah represents the ancient city of Ḥet-Uārt, or Avaris, the headquarters of the Hyksos, has been revived, and an attempt has been made to explain the seven years' famine mentioned in Genesis by Sir W. Willcocks' work on the Aswân Reservoir and Lake Moeris. This identification is opposed to all the known Egyptological facts about the geography of Avaris, and is without satisfactory foundation.

2. Cairo to Damietta viâ Manṣûrah.

In addition to the sites of archæological interest in the Delta which are mentioned in the descriptions of the routes to Cairo from Alexandria and Port Sa'îd respectively, there are several to which visits may be paid by those who can spare the time and are not averse from long donkey rides and journeys in boats across portions of Lake Manzâlah. Among such sites may be mentioned—(1) Tall al-Yahûdîyah; (2) Khata'anah; (3) Ṣân; (4) Nabêshah; (5) Tamai al-Amdîd; (6) Ṣaft al-Ḥannah.

1. The ruins of **Tall al-Yahûdîyah** lie near the modern town of Shibîn al-Ḳanâtîr, about 20 miles from Cairo. At this place Rameses III built a small palace which contained a chamber lined with beautifully glazed tiles ornamented with floral designs, figures of birds, animals, representatives of foreign conquered tribes, etc. In the reign of Ptolemy VII, a young Jew called **Onias,** the son of the high priest of the same name who had been put to death by Antiochus, petitioned the king to allow him to build a temple wherein the Jews could worship God according to their own customs. Ptolemy's answer is said to have run thus:—"King Ptolemy and Queen Cleopatra "to Onias send greeting. We have heard the petition, wherein "thou desirest leave to be given to thee to purge that temple "which is fallen down at Leontopolis, in the Nomus of Helio-"polis, and which is named from the country Bubastis; on "which account we cannot but wonder that it should be "pleasing to God to have a temple erected in a place so "unclean, and so full of sacred animals. But since thou "sayest that Isaiah the prophet foretold this long ago (*see* "chapter xix, 19), we give thee leave to do it, if it may be "done according to thy law, and so that we may not appear "to have at all offended God therein." Onias then built a tower 60 feet high, with a burnt brick girdle wall, and with gates of stone; the altar was like that at Jerusalem, and over it hung, by a gold chain, a lamp which was beaten out of a piece of gold. The place was called "Onion" by the Jews, and "Scenæ Veteranorum" by the Romans, and it appears to have been built on the site of the temple of Rā, which lay to the north of Heliopolis. It was looted by Lupus, Governor of Alexandria in the reign of Vespasian, and was destroyed by his successor Paulinus, 343 years after it had been founded. The site was exhaustively excavated by Emil Brugsch Pâshâ,

who obtained from it some valuable antiquities, which are now in the Egyptian Museum and in the British Museum. A plan of the site was published by Prof. Hayter Lewis in 1882. An examination of the ruins recently made has produced little except fanciful theories.

2. Near **Khata'anah** lie a number of mounds, several of which were excavated by Professor Naville in 1885; these mark the site of a large frontier town under the XIIIth dynasty, and the names of some of its kings were inscribed upon the fragments and remains that were exhumed by him.* Khata'anah lies to the north of Tall Fâḳûs, which is reached by train from Cairo *viâ* Banhâ and Zaḳâzîḳ.

3. Near **Ṣân,** *i.e.*, a little to the south of it, and about 25 miles north of Tall Fâḳûs, lie the ruins of the ancient city of **Tanis,** which was built on the arm of the Nile called Tanitic. The town which the Greeks called *Tanis*, and the Copts ⲦⲀⲚⲈⲰⲤ or ϪⲀⲚⲎ, was named by the ancient Egyptians [hieroglyphs] *Sekhet Tchā*, or [hieroglyphs] *Sekhet Tchānt* (which is accurately translated "Field of Zoan,"† שְׂדֵה־צֹעַן, in Psalm lxxviii. 12, 43) and [hieroglyphs] *Tchart*, it was the capital of the fourteenth nome of Lower Egypt, [hieroglyphs] Khent-âbt. The two determinatives [hieroglyphs] indicate that the place was situated in a swampy district, and that foreigners dwelt there. The Arabs have adopted the shorter name of the town, and call it Ṣân. Dr. H. Brugsch endeavoured to show that Tanis represented the town of Rameses, which was built by the Israelites, but his theory has not been generally accepted, although there is no doubt whatever that Tchar and Tanis are one and the same town. The other names of Tanis given by Dr. Brugsch in his great *Dictionnaire Géographique* are "Mesen, Mesen of the North, Teb of the North, and Beḥuṭet of the North." Tanis was

* *See* the *Seventh Memoir* of the Egypt Exploration Fund, London, 1890, p. 56, col. 2; also *Fourth Memoir*, London, 1887, p. 21 *ff.*

† Zoan must have been considered a place of great importance by the Hebrews, for they date the founding of Hebron by it (Numbers, xiii, 22), and Isaiah, describing the future calamities of Egypt, says, "Surely the princes of Zoan are fools" (Isaiah xix, 11).

situated on the right or east bank of the Tanitic branch of the Nile, about 30 miles nearly due west of the ancient Pelusium; and as it was near the north-east frontier of Egypt, it was always one of the towns which formed the object of the first attack of the so-called Hyksos, Syrians, Assyrians, Greeks, Arabs, and Turks. The excavations which have been made in the ruins round about Ṣân by Mariette and Petrie prove that Tanis must have been one of the largest and most important cities in the Delta. The earliest monuments found here date from the time of Pepi I, VIth dynasty, about 3233 B.C.; the next oldest are the black granite statues of Usertsen I and Åmenemḥat II, a sandstone statue of Usertsen II, an inscribed granite fragment of Usertsen III, and two statues of Sebek-ḥetep III. Following these come the most interesting black granite sphinxes, which are usually said to be the work of the so-called Hyksos, but which are, in the writer's opinion, older than the period when these people ruled over Lower Egypt. The cartouches inscribed upon them only prove that many kings were anxious to have their names added to these monuments. The greatest builder at Tanis was Rameses II, who erected a temple with pylons, colossal statues, obelisks, and sphinxes. Pasebkhānu, Shashanq I, and Shashanq III repaired and added to the buildings in Tanis, and they took the opportunity of usurping sphinxes, obelisks, &c., which had been set up by earlier kings. Traces of such usurpations are found everywhere at Ṣân. Here, too, was found in the eastern portion of the ruins of the great temple, near the shrine, the famous **Stele of Four Hundred Years.** The stele was set up in honour of the god Set, by an official called Seti, who appears to have flourished in the reign of Rameses II. The inscription upon it, which is of the time of Rameses II, is dated in the four hundredth year of a Hyksos king named "Āa-peḥti-Set, son of the Sun Nub-Set" [hieroglyphic cartouches], which appears to prove that this king reigned 400 years before the time of Rameses II. Instead of being dated in the day and month and year of Rameses II in which it was set up, it is dated in the **400th year** of the Hyksos king **Nubti,** a very remarkable fact. After Mariette had read and copied the text he reburied the stele in the place where he had found it. The last native king of Egypt whose name is mentioned at

Tanis is Nectanebus II, and after him come the Ptolemies. The stele, commonly called the **Decree of Canopus,** which was set up in the ninth year of Ptolemy III, Euergetes I (238 B.C.), was found here.

Under the Roman Empire Tanis still held a high position among the towns of the Delta, and the Egyptians considered it of sufficient importance to make it an episcopal see. In the list of the bishops who were present at the Council of Chalcedon (A.D. 451), the name of Apollonius, Bishop of Tanis, is found. Tanis must not be confounded with Tennis, the seaport town which grew and increased in importance as Tanis declined; and it is difficult to understand why Tanis should have dwindled away, considering that Arab writers have described its climate as being most salubrious, and its winter like summer. Water was said to flow there at all times, and the inhabitants could water their gardens at their will; no place in all Egypt, save the Fayyûm, could be compared with it for fertility, and for the beauty of its gardens and vines. After the sixth century of our era the sea invaded a large portion of the territory around Tanis, and it went on encroaching each year little by little, until all its villages were submerged. The inhabitants removed their dead to Tennis, and established themselves there; Tennis was evacuated by its inhabitants A.D. 1192, and the town itself **was destroyed A.D. 1226.**

4. About half-way between Ṣân and Aṣ-Ṣâlaḳîyah is **Tall-Nabêshah,** which marks the site of a fortified frontier town under Rameses II, and no doubt formed one of the chain of fortresses which he built across the north-east border of the Delta. The town existed in the XXVIth dynasty, for some of the kings of that dynasty repaired the temple of the local goddess. There is nothing of interest at Tall-Nabêshah.

5. Near **Sinballâwên,** which is on the main line between Zaḳâzîḳ and Manṣûrah, is the mound which the Arabs call **Tamai al-Amdîd,** and which marks the site of the classical **Thmuis.** Close by is another mound, to which ancient Arab writers gave the name of **Al-Mandîd**; this marks the site of **Mendes.** In, or a little before, the Ptolemaïc Period Thmuis and Mendes were incorporated, probably because the inhabitants of both places worshipped the ram. In the fourth century of our era Thmuis was a flourishing town, and possessed its own magistrates, and was exempt from the jurisdiction of the Governor of Alexandria. It was also an episcopal see, and Serapion, one of its bishops, is mntioned

by Herakleanus. The importance of Thmuis–Mendes is proved by the fact that Amasis II dedicated to the Ram-god a shrine, which was 23 feet high, and Ptolemy II restored the sanctuary, and took part in the ancient ceremonies which were performed in that city at the installation of a new Ram. The statues of Ptolemy II and his wife Arsinoë were placed near the Ram in the procession, and were carried through the streets followed by the chief men of the city, and by crowds of rejoicing citizens. A few Egyptian monuments are still to be seen at this place. The name Tamai al-Amdîd represents the two names Thmuis and Mendes. Tamai = Thmuis, and Amdîd is a corruption of Mendes, which is the Greek form of the Egyptian name Ba-neb-ṭeṭ, [hieroglyphs]. There are a great many mounds in this district which conceal remains of ancient Egyptian buildings, and there is no doubt that under the XIXth dynasty the whole region was full of small towns, many of which were strongly built and fortified, so that they might resist the attacks of the nomad tribes from the Eastern Desert and Syria. It seems, however, that they had to be built on mounds artificially constructed, the object being to keep them above the waters of the inundation. The saturated soil and the storms of war and conquest do away with any hope that many fragile objects or papyri will be found among the ruins.

6. Close to the railway which joins Zaḳâzîḳ and Abû Hammâd, and a little to the south of it, is **Ṣafṭ al-Ḥannah,** which was explored by Professor Naville in 1884; it marks the site of a large, ancient Egyptian town, in which Rameses II built a fine temple, for a colossal statue of this king in black granite was found in a cornfield near the village. Some 40 or 50 years ago the *fallâḥîn* discovered a rectangular, monolithic shrine, measuring 7 feet by 6 feet 9 inches by 6 feet, covered inside and out with beautifully executed inscriptions and scenes. The local Pâshâ, who thought that gold was hidden inside it, promptly had it broken in pieces, two of which were carried to his farm, and the remainder were used for building the bridges of Ṣafṭ and Ṭahra Hamad! The shrine was dedicated to the Ram-god and the Hawk-god of the East by Nectanebus II, the last native king of Egypt, about 360 B.C. A restoration of the sanctuary of these gods was made by Ptolemy II, probably about 100 years later.

7. West of the railway which runs from Manṣûrah to Mît

Samannûd are the remains of a town which the Arabs call **Bahbît al-Ḥagar;** these mark the site of an ancient Egyptian town which was either founded or rebuilt by Nectanebus II. At this place stood a temple of Isis, which was begun by Nectanebus II, and finished by Ptolemy II. The Egyptians called the town Pa-Ḥebet, from which the first part of the modern name is derived.

The traveller who is visiting places in the Delta which are off the beaten track should not fail to include Damietta and Manṣûrah in his route, for though nothing much is known of the early history of these towns, each possesses an interest peculiar to itself, and there are no places quite like them in the Delta. **Damietta,** the Dumyât of the Arabs, the Tamiati of the Copts, and the Thamiatis of the Greeks, is a flourishing town containing 30,984 inhabitants; it stands on the east bank of the Phatnitic arm of the Nile (now called the Damietta branch), is about 110 miles from Cairo, and from four to six miles from the sea. A seaport town of considerable size must have existed here when the Pharaohs were reigning, and under the Ptolemies and Romans it was, no doubt, a position of great importance; the old town probably stood nearer the sea than the modern one. Brugsch identified it with the Ḥet-nebs, [hieroglyphs], of the texts, but this identification is doubtful, and that town is probably that which the Arabs called Bânâbûs. Damietta formed a port of call for many fleets, and the harbour was, as now, generally filled with sailing craft of all kinds. In the Middle Ages it did a large trade in a kind of linen stuff called, from the name of the place, "dimity" (just as "damask" is called after the name of Damascus), oil, coffee, dates, fish, etc. It was attacked in 1169 by the King of Jerusalem, who set up siege-towers and mangonels against it, but Saladin defended it ably, a storm wrecked many of the ships of the invaders, and they were obliged to return to Palestine. In 1218 it was besieged by John of Brienne in April of that year, and on St. Bartholomew's Day, August 24th, it capitulated; but after a two days' battle the Crusaders were beaten, on August 31st they were obliged to evacuate Damietta, and on September 7th the whole of the Crusading army left Egypt in shame. In June, 1249, Louis IX landed at Damietta, the garrison fled, and the French king occupied it without striking a blow. The French made the same mistakes as John of Brienne, they were defeated in many fights, their ships were

captured, and at length Louis and his army were held at ransom for 10,000,000 francs; a large proportion of the ransom was paid, and the remnant of the force of the Crusaders sailed for Akka in November, having utterly failed to break the Arab power in Egypt. Damietta was then destroyed, and a new town was built further inland. The French took possession of Damietta in 1798, and gained a victory over the Turks in the following year; they were, however, expelled soon after by the British under Sir Sidney Smith. Under the rule of Muḥammad 'Ali some attempt was made to increase the commercial prosperity of the town, but the good effect was not permanent; in recent years the town has suffered greatly through the growth and development of Port Sa'îd.

Manṣûrah, the "city of victory," is about 95 miles from Cairo, and has a population of 49,238 inhabitants, the principal occupations of which are connected with the cotton trade. There are numerous large manufactories here where cotton is worked and oil is pressed from the seeds, and the town is a thriving one. Several of the streets are wide, and the houses are large and well built, according to the French pattern. The mosque is well worth a visit, for several of the pillars of its arches were taken from buildings which were probably Christian, and the pulpit is of carved woodwork. The town stands on the right or east bank of the Phatnitic (Damietta) branch of the Nile, which is here both broad and deep. Manṣûrah is not older than the time of the Crusaders, and it was to this place that the Egyptians fled when Louis IX of France seized Damietta. During this unfortunate crusade Louis and his three armies charged right through the Muslim camp into Manṣûrah, and out on the other side; but here he was attacked by 10,000 Mamlûks, and Robert, Count of Artois, and 300 of his men, and nearly all the Templars, and William Longsword and nearly all the English, were slain. The Muslims counted 1,500 knights and nobles among the dead.

3. Cairo to Sîwah, or the Oasis of Jupiter Ammon.

A journey to the Oasis of Jupiter Ammon may be made either from Cairo or Alexandria, but the shorter route is from Cairo *viâ* the Oasis of Garâh. If the traveller decides to start from Alexandria, two ways are open to him: he may journey along the sea-coast from Alexandria to Baralûm, the Parætonium

of classical writers, and then march southwards to Sîwah, that is to say, to the Oasis, or, he may travel still further along the sea-coast until he reaches Katabathmus Major, the modern 'Aḳabat al-Kabîr, when, marching southwards, he will reach Sîwah without difficulty. In each case the length of time required for the journey varies between 18 and 20 days; it is impossible to make a more definite statement, for so much depends upon the individual traveller and his mounts. Apart from this, sandstorms are more frequent and intense at some seasons of the year than others, and caravans, small or great, may be delayed for days at a time by them. If the traveller prefers to start from Cairo, he must set out from the neighbourhood of Gîzah, and follow the old Pilgrim Route, which runs in a north-west direction, until he arrives at the south-east end of the Wâdî Naṭrûn or "Natron Valley." From this point he travels almost due west for about 15 days, when Sîwah is reached.

The ancient Egyptians called the Oasis of Jupiter Ammon by the name of Sekhet-Åmit, , and the Arabic name is **Sîwah.** Of the early history of the Oasis nothing is known. Herodotus tells us (iii, 25) that when Cambyses reached Thebes he sent 50,000 men to reduce the inhabitants of this Oasis to slavery, and to burn their temple. It is said that this force marched for several days from Thebes, and reached the Islands of the Blessed, *i.e.*, the Oases of Khârgah and Dâkhlah, but that having attempted to proceed to the Oasis of Jupiter Ammon, when they were about half way, "as they were taking dinner a strong and vehement south "wind blew, and carrying with it heaps of sand, covered them "over, and in this manner they disappeared." Alexander the Great visited the Oasis, and on his way the Cyrenæans brought him gifts; the god worshipped there was Amen. The object worshipped was made of emerald, surrounded by precious stones, and was, as Prof. Naville has shown, set in the circular hollow of a shield-shaped object which was placed in a boat. Åmen saluted Alexander, and acknowledged him as his son; this was the whole point of the visit. According to Quintus Curtius (iv, 7) the track to the Oasis was barely practicable to a small band lightly equipped. Water, from springs or from the clouds, is rarely afforded. The solar heat is intolerable; the atmosphere is a glowing vapour; a desolate expanse of sand burns the feet. The traveller has to struggle

with a deep layer of loose sharp dust, which, giving way to the tread and sticking to the flesh, renders stepping painful. Alexander, however, was stimulated by a powerful desire to present himself before "Jupiter, whom, dissatisfied with a mortal origin, he believed to have been his father; or, he designed that others should believe it." As the king was approaching, the senior priest saluted him as "son," affirming that his father Jupiter bestowed that title. Alexander replied that he accepted it, and enquired whether his father had destined him to the empire of the globe. The priest replied that "he should govern the whole earth." He then asked whether all who conspired and killed his father had been punished, and the answer was that "the crime of no one "could hurt the memory of his father, and that all the "murderers of Philip had suffered punishment, and that "Alexander should continue to be invincible till he joined the "assembly of the gods." Alexander's friends then asked the god if they were to pay divine honours to their king, and he replied that "it was agreeable to Jupiter that they should "render to their victorious king the honours of divinity."

The Oasis is about six miles long, and from a quarter of a mile to four or five miles wide; it possesses hot springs and a sulphur mine, and the Fountain of the Sun (18 feet deep), and about 150 springs. It contained 300,000 olive trees and palm trees in 1907, and in 1917 its inhabitants were 3,267. The hill called Gabal Mûta is full of ancient tombs, which have never been properly examined. The principal towns of the Oasis are Sîwah and Akermi, each being in the possession of a powerful tribe; these two tribes are often at war, but hostilities are not carried so far as formerly, when the Oasis was independent of Egypt. In the town of Akermi apparently was situated the Egyptian fortress which is described by Diodorus, and the temple which belonged to it stood on the site now occupied by the village of Umm al-Bêḍah. In the latter place Cailliaud and Minutoli found the remains of a sanctuary, with many lines of hieroglyphic writing, and close by were discovered reliefs, with figures of the gods, and the ordinary descriptions of the gifts which they gave to the king accompanied them. The size of the reliefs suggested that the temple was one of considerable importance, and it is probable that the Oasis was fortified at the end of the XIXth dynasty, when the Libyans began to occupy the outlying lands of the Western Delta. The remains which have been found in

various parts of the Oasis prove beyond a doubt that the occupation of the place by the Egyptians was a very effective one.

The advantage of visiting the Oasis of Sîwah from Cairo is that, either going or returning, the traveller can pay a visit to the Monasteries in the Wâdî an-Naṭrûn, or **Natron Valley.*** Those who do not wish to see more of the desert than they can help, and who only care to visit the Monasteries, had better go by train from Cairo to Al-Wardân or Bani Salâmah, and then cross the desert to the Natron Valley. The Natron Valley obtains its name from the muriate of soda † which has always been obtained there in large quantities ; the Egyptians called the salt *ḥesmen*, , and the classical writers "natron." According to Strabo (xvii, 1, 23), this was produced by two lakes, but other writers give the number of lakes as six, and some enumerate eight ; the old inhabitants of the Natron Valley worshipped Serapis, and Strabo says they were the only people in Egypt who sacrificed the sheep. The length of the Natron Valley is about 20 miles, and near the middle of it was the town, commonly called **Scete,** where the Christian monks built a large settlement ; Scete is said to have been one and a half day's journey from Lake Mareotis, but exactly which part of the Lake is referred to is not said. Ecclesiastical writers distinguish carefully between the different parts of the Natron Valley, thus there was the town of Nitria, the town of Scythia (Scete), Petra, the **Cells** and the **Ladder** (κλίμαξ). At the end of the first half of the fourth century Christian recluses began to assemble there, and, led by **Macarius the Egyptian,** they emulated the lives of Anthony the Great, and other early ascetics. Some 5,000 monks lived there, and there were 600 anchorites in the desert near ; there were seven bakeries there, a church, and a guest house or *khân*, where doctors practised. The monks fasted all the week, went to church on Saturday evening and Sunday, and ate a meal on the latter day, and drank water. They maintained themselves by the weaving of mats, which, incidentally, gave their hands something to do, and yet permitted them to think of their sins. The place called the Ladder was 18 miles from water ; the Cells were 10 miles from Nitria and four from

* For the interesting description of the Wâdî an-Naṭrûn by the Hon. N. Charles Rothschild and the Hon. Francis Henley see W. E. de Winton in *Novitates Zoologicae*, Vol. X, August, 1903.

† Also sulphate of soda, carbonate of soda, chloride of sodium, etc.

the church. The buildings which may now be seen in the Natron Valley are :—

The Monastery of Macarius contains three churches, and two or three chapels; the saint is said to be buried in this Monastery. About 10 miles to the west is the **Monastery of Anba Bishâï**, and in the chapel dedicated to the Virgin the saint is said to be buried. A little further to the west is the Syrian Monastery, or **Dêr Suryânî**, which was built by John the Dwarf in the reign of Constantine, the son of the Empress Helena, who, tradition asserts, found the True Cross; it was formerly in a very flourishing condition, and in the fifth and sixth centuries possessed a very valuable library. It contains three churches, the largest and finest being dedicated to the Virgin. The **Monastery of Baramûs** lies six or eight miles further to the west, and also contains a church dedicated to the Virgin. The few monks who live in these monasteries are poor, but their courtesy and hospitality are well known; their possessions are few, and, though they may not equal Macarius in their ascetic strenuousness, no one will deny that their lives are sufficiently hard, and that they are dead to the world. The Natron Valley has been the resort of ascetic Christians from the earliest times, for Frontonius took up his abode there in the second century; Habîb, the Arab, the friend of the Prophet, also withdrew there in troublous times. In the seventh century the monks there numbered 3,500. In modern times the Valley has been visited by Egidius Lochiensis in 1633, who saw 8,000 MSS. there; Wansleb in 1672 and 1673, who saw three or four chests full of MSS.; Huntingdon in 1678 and 1679; Gabriel Eva in 1706, who saw a cellar full of MSS.; J. E. Assemânî in 1707, who bought some MSS., which came to the Vatican; J. S. Assemânî in 1715 (with Claude Sicard); Granger in 1730; Sonnini in 1778; Andréossi in 1799, who brought away some MSS. with him. In 1828 Lord Prudhoe went to the Natron Valley, and acquired a number of Coptic MSS. from the Monastery of Baramûs; in 1837 the Hon. R. Curzon also obtained several vellum MSS. at the monasteries, and in 1838 the Rev. H. Tattam purchased 49 Syriac MSS., which he sold to the Trustees of the British Museum. The same year the Trustees of the British Museum sent Mr. Tattam to Egypt to obtain the MSS. which were still there, and of these he was so fortunate as to secure about 314, which arrived at the British Museum in 1843. In 1845 M. A. Pacho (not the

traveller Pacho, who committed suicide on January 26th, 1829) went and lived with the monks for six weeks, and in the end succeeded in obtaining the remainder of the MSS., about 190 in number; 172 of these came to the British Museum in 1847, 10 were sold to the Trustees in 1851, and M. Pacho kept back and sold several to the Imperial Public Library in St. Petersburg in 1852. All these MSS. really came from the Convent of St. Mary Deipara (Dêr Suryânî), and the importance of the Library cannot be over-estimated, for it has supplied us with some of the oldest dated books in existence, has given us the Syriac Bible in several versions, the Epistles of Ignatius, the works attributed to Clement, Patristic literature of all kinds, and a considerable number of native Syrian works, most of which were unknown prior to the discovery of the Library. As we are told that the Natron Valley held about 100 monasteries during the sixth and seventh centuries, it is not difficult to imagine what literary treasures their Libraries must have contained. At the present time there are no MSS. of importance in the Natron Valley, and only those who are interested in archæology are recommended to visit it. The reader who is interested in the history of the discovery of the MSS. should read *Visits to Monasteries in the Levant*, by the Hon. R. Curzon, 5th ed. 1865, p. 86, *ff.*; an article by Cureton in the *Quarterly Review*, No. CLIII, p. 51; and the privately printed "Journal" kept by Miss Platt, who accompanied her stepfather, the Rev. H. Tattam, on his journey in search of MSS. in 1839. The population of the Wâdî an-Naṭrûn was 1,104 in 1917.

4. The Oases.

To the west of the Nile, in the Great Libyan Desert, at various distances from the river, are a number of fertile tracts of land, with trees, wells, etc., which have been inhabited from time immemorial. To such a place the ancient Egyptians gave the name of UAHET [hieroglyphs], whence the Copts derived their word ⲟⲩⲁϩⲉ, and the Arabs *Al-Wâḥ*, and western nations the word "oasis." The exact meaning of the Egyptian word is unknown, but it no doubt was intended to convey the idea of the limited area which could be irrigated by the natural springs or wells which existed in it. The principal **Oases** in the

western desert are :—(1) The Oasis of Sîwah, or Jupiter Ammon. (2) The Oasis of Baḥarîyah. (3) The Oasis of Farâfrah. (4) The Oasis of Dâkhlah. (5) The Oasis of Al-Khârgah. (6) The Oasis of Kûrkûr. (7) The Oasis of Salîmah.

The **Oasis of Sîwah** may be reached without difficulty from Cairo or Alexandria; both routes have already been described (*see* p. 252). It may be reached in 12 days by camel from Damanhûr.

The **Oasis of Baḥarîyah**, *i.e.*, the Northern Oasis, is thought by some to represent the "**Little Oasis,**" or the "Second Oasis" of classical writers. This Oasis lies between the parallels 27° 48′ and 28° 30′ of north latitude, and between the meridians 28° 35′ and 29° 10′ east of Greenwich, about 110 miles to the west of the Nile, and 202 miles from the Oasis of Sîwah. It was visited by Belzoni, who arrived there on May 26th, 1819, and stayed eleven days; by Cailliaud and Letorzec, who stayed there six weeks in 1820; by Pacho and Müller in 1823–24; by Wilkinson in 1825; by Rohlfs in 1874; by Aschenson, who found there the remains of temples, one being a temple of Thothmes II, in 1876; by Captain H. G. Lyons, R.E., in 1894; by Dr. Steindorff in 1900; and by Messrs. Ball and Beadnell in 1902. This Oasis is really a large, natural excavation in the Libyan desert plateau (Ball and Beadnell, *Baharîa Oasis*, Cairo, 1903, p. 37). Its greatest length is 80 miles, and its greatest width 25 miles. In 1897 it contained: apricot trees 4,863, olive trees 5,370, palms 93,000; three-fourths of the dates grown are exported. The population of the Baḥarîyah and Farâfrah district was 6,497 in 1917; of these, 6,468 were Muslims, 16 Orthodox, and 13 Protestants. In 1907 the population was 6,773. It is situated to the north of Farâfrah, and is easily reached in four or five days starting from Al-Madînah in the Fayyûm. The route runs through Rayân, and, travelling in a south-westerly direction, the Ḳaṣr, or "Fort," will be found without difficulty. At Sabu, Ḥêz, and elsewhere, Cailliaud saw ruins of the Roman and Christian (Coptic) Periods, but most of these have now disappeared. Portions of two temples of the XXVIth dynasty are still visible. Several of the villages on the Oasis were at one time occupied by Copts, a fact proved by the ruins of their churches which have been described by various travellers. The Arabic name seems to be a translation of the old Egyptian name for this Oasis, viz., UAḤET MEḤT [hieroglyphs], "Oasis of the North";

but on the other hand there seems to be some reason for believing that at one time this name referred to the Oasis of Dâkhlah.

The **Oasis of Farâfrah**, 27° 3′ 30″ north latitude, and 28° 0′ 15″ east longtitude, lies a little to the south of Baḥarîyah, and rather less than halfway between it and Dâkhlah. The Egyptians called it Ta-Âḥet, [hieroglyphs], *i.e.*, the "land of Cattle," and it possessed some importance as a halting place between Sîwah and Dâkhlah and Baḥarîyah and Dâkhlah. This Oasis can be reached from Minyâ on the Nile in eight days on a good camel. It lies about 203 miles to the west of Asyûṭ. It was visited by Rohlfs, Zittel, and Jordan in 1874. This Oasis contains about 29 springs, which are enumerated by Beadnell (*Farafra Oasis*, Cairo, 1901, p. 10). Wheat, barley, *dhura*, rice, dates, olives, and onions are grown, but the crops barely suffice for the wants of the people. The population in 1907 was 632, *i.e.*, 306 males and 326 females. Farâfrah is the healthiest of the Oases. The amount of cultivated land in this Oasis is very small, and it seems impossible that it can ever have been a flourishing place through its own resources. On the north are numbers of Muḥammadan graves, and on the east are several rock-hewn tombs; the latter were probably made for Roman travellers, but may have been usurped by Christian refugees or monks.

To the west of Farâfrah is the recently discovered **Oasis of Ad-Dailah,** with two water holes or springs; that on the east is called Bîr Labayyad, and that on the west 'Ain ad-Dailah.

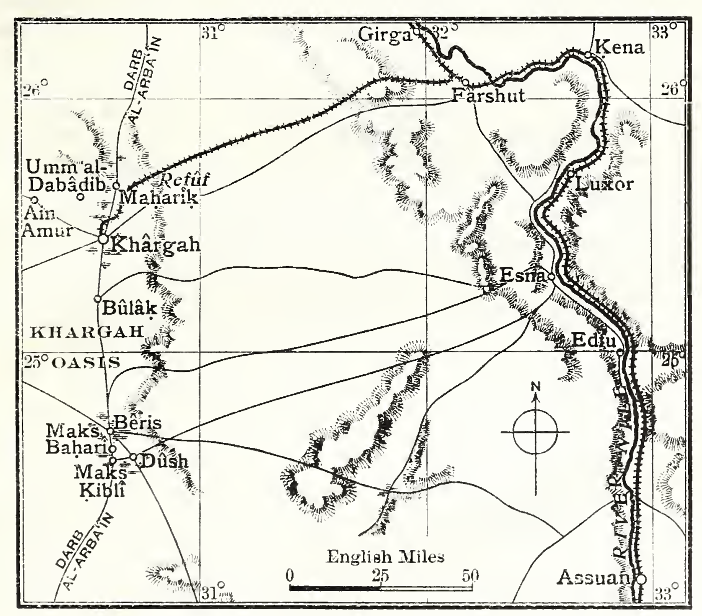
The **Oasis of Dâkhlah** lies to the south-east of Farâfrah, about four days' journey from that Oasis, and four days' journey from Al-Khârgah Oasis, and six or seven days' journey from Asyûṭ in Upper Egypt. It is 75 miles due west of Al-Khârgah, and about 203 miles due west of Armant, or Erment. It has been visited by Drovetti, Edmonstone in 1819, Cailliaud in 1819, Rohlfs in 1874, and Captain H. G. Lyons in 1894. Mr. Beadnell (*Dâkhla Oasis*, Cairo, 1901, p. 12) describes its position as "between the 25th and 26th parallels of lat. north, to the west of long. 30° 15′ east of Greenwich." Dâkhlah is divided into two parts: in the western part are Ḳaṣr Dâkhlah, Budkhulu, Al-Mûshîah, Ar-Rashîdah, Al-Gadîdayah, Al-Ḳalamûn, Al-Hindâw, Ismant, Al-Ma'sarah, and Mut, the present capital, and in the eastern part are Balât, Tinêdah, Bashandi, Dumêrîyah, and Kamûlah. The revenue was, in

1909, £E.2,483, and was derived chiefly from a tax* on the date palms, which were 196,172 in number. The area of the low ground is about 97,617 acres. The population was 17,699 in 1917, and there were only 10 Christians in the whole district; in 1907 the population was 18,368. The entire water supply is derived from an underground bed of sandstone. The wells bored by the Romans are about 420, many of which are in working order; the modern wells are 162 in number. The temperature at Ḳaṣr Dâkhlah varies from 93 to 102·5 Fahrenheit. The Egyptian name of this Oasis was Tches-Tcheset, . The capital of the Oasis is Al-Ḳaṣr, with 3,241 inhabitants; here are springs of sulphur and other waters. The principal ruins are those of **Dêr al-Hagâr,** which have nothing to do with a monastery, as the name suggests, but with a temple of the Roman Period, which was dedicated to Åmen-Rā, or Horus of Beḥuṭet, by Titus and other Roman Emperors. Of the history of the Oasis in ancient Egyptian times nothing is known, but the Romans kept an *ala* of soldiers here, and we may assume that they had some good reasons from a commercial point of view for doing so. This Oasis no doubt afforded a home for large numbers of Christian recluses and monks from the third to the fifth centuries of our era, especially as the leaves of the palm trees would afford abundant material from which they could weave mats and ropes for the use of the caravans, and so earn a living. In recent years Dâkhlah has exported a large quantity of dates each year, and the date trade must always have formed the principal source of income for its inhabitants. The name Dâkhlah means "Inner," as opposed to Khârgah, the "Outer" Oasis.

Until the year 1908 a journey to **Khârgah Oasis** from the nearest point on the Nile required about a fortnight; but now, thanks to the Western Oases Railway (2 feet 6 inch gauge), which was built by the Corporation of Western Egypt, Limited, and has now been acquired by the Egyptian Government, the traveller can reach Khârgah from Cairo in about **20 hours.** This Oasis is the largest and most interesting of all the Oases in Egyptian territory, and should certainly be visited by all who can spare the time. The traveller may visit the Oasis any time between the middle of December and the beginning of

* A full-grown palm pays 1½ piastres per annum, and each well 50 piastres per annum.

March; he should at all events be there before the Khamasîn winds begin to blow. In the winter months the air is clear and bracing, but the nights are cold, as in the Sûdân; the sky is cloudless and the days are hot. As there is much shallow water in the low-lying lands, and the air is hot and steamy above them, a particularly vicious species of mosquito thrives in the swamps and swarms in every part of the Oasis, especially when the wind blows from the south. Mosquito curtains should be carried by, or provided for, the visitors, for fever



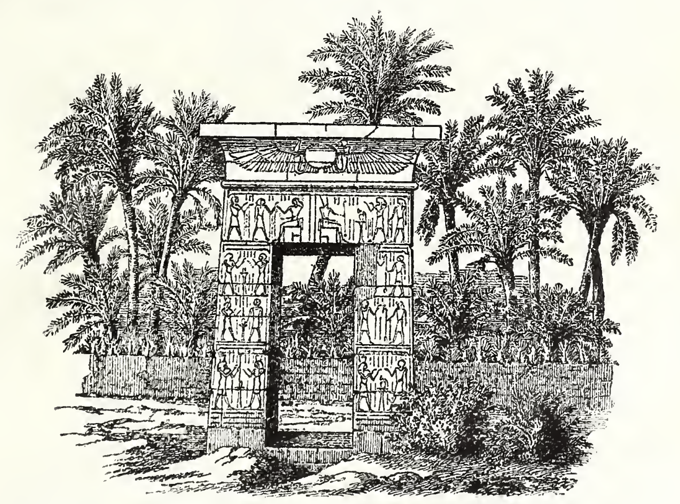
The Oasis of Khârgah, showing the new Railway.

invariably follows a series of mosquito bites. Quinine and carbolic acid can be obtained at the dispensary in Khârgah village. The journey is made in a comfortable carriage with a double roof and provided with cane arm-chairs and racks on which light articles, books, field-glasses, hats, small hand-bags, etc., may be placed; at one end lavatory accommodation is found, and a good supply of fresh water is carried in large porous *zîrs*, or vessels which are familiar to every traveller in Egypt. Besides the ordinary glass windows, each window

frame is fitted with a wire dust screen and a window of tinted blue glass, a luxury which is greatly appreciated by those whose eyes have suffered from the merciless glare of the steely blue sky, and the blinding light and heat reflected from white rocks and scorching sand. The little train is hauled by a powerful though small locomotive, fitted with all the improvements which experience in the Sûdân has suggested to railway engineers, and both engine and train are fitted with strong air brakes. The need for these will be seen at once when the traveller begins to descend into the Oasis from the rocky plateau which separates it from the Nile. The railway telegraph runs by the line, and in the event of a breakdown on the plateau communication can be made with headquarters at either end of the railway. A luncheon basket is provided at ordinary prices, but restaurant cars have now been attached to each train, and it will be unnecessary to purchase one before starting.

The Western Oases Railway leaves the main line at **Khârgah Junction** (Muwaṣlat al-Khârgah), a new station which has been built to the north of **Farshût,** and passing over a strong timber bridge runs along the top of an embankment, which divides two great irrigation basins, to **Al-Ḳar'ah** (القرعة), which stands on the edge of the desert. Here are a set of offices of Oases Railway Administration, and a number of small, clean houses, wherein the traveller can find board and lodging. Everything is very clean. Soon after leaving the cultivated land of the Nile Valley the railway proceeds in a south-westerly direction up the Wâdî Samhûd, at the end of which it reaches the plateau. The geologist will find much to interest him as he passes up from the valley to the plateau. It then continues its course in the same direction to **Al-Tundûbah,** 57 miles from Khârgah Junction. Here there is a deep shaft, which at one time appears to have been a well. The railway then follows the old Rafûf road until it reaches **Rafûf,** about 28 miles from Khârgah, when it begins its **descent into the Oasis.** Across the plateau not a trace of vegetation is to be seen, and there is no sign of life of any kind; the plain is strewn with large circular boulders, which are all that remain of the layers of stone which have disappeared. The writer noticed one solitary small bird perched on a rock about halfway across, but it may have travelled with us on the roof of the carriage. In descending the pass the

scenery became wild and picturesque, though in places it was severe, if not grim and savage. From the bottom of the pass the line runs across the plain to **Maḥarîk,** which is about 100 miles from the Nile, and then on to the headquarters of the Corporation of Western Egypt, Limited, at **Makanât,** "the place of the machines," which lies due south of Maḥarîk. Here also are small clean houses for the use of travellers. A few miles further on, at a place quite close to the temple of Darius, are a few wooden houses for the use of travellers, a kitchen and mess room, etc., and the line comes to an end about 3 miles further to the south, about 1½ miles from the



Gateway of the temple of Darius I at Khârgah.

village of Khârgah. On looking around the traveller will see that he is standing in a depression, the north and east sides of which are walls of stone which rise to a height of from 600 to 1,000 feet. To the west are low hills, and near them and to the south are the remarkable sand dunes, which have evoked the interest and curiosity of every traveller. Their appearance suggests the work of man, but their shapes and curves baffle all attempts to describe them with exactness. Looking towards Khârgah village a number of shêkhs' tombs are seen, and beyond these are groves of palms which stand near pools and channels of living water. The contrast between the green

colour of the palm leaves and of the vegetation which clusters about them is very striking, and though for beauty the Oasis scenery is not to be compared with that of the Nile, it nevertheless possesses a charm of its own which grows on the beholder, and makes him feel that he did well to visit Khârgah.

History.—The Oases have belonged to Egypt from time immemorial, and classical writers have always assigned them to Egypt. Strabo mentions three—Sîwah, one to the west of Khârgah, and Khârgah. The hieroglyphic and Greek inscriptions of Khârgah prove that both the Ptolemies and the Romans included them in their Empire. Arab writers also unanimously regard the Oases as a province of Egypt. The region of the Oases is called in Egyptian Uaḥ [hieroglyphs],* and each Oasis had its special name; Khârgah was [hieroglyphs], the "Southern Oasis," as distinguished from the Oasis in the north which classical writers called Oasis Parva. Khârgah was certainly inhabited in pre-dynastic times, and some writers assert that men lived there in the Neolithic and even in the Palæolithic Period. It is tolerably certain that great kings like Seneferu (IVth dynasty) made the Oases send him gifts, and Pepi I and Pepi II (VIth dynasty) had them in subjection. The stele of the official Aquāā at Berlin proves that in the reign of Usertsen I (XIIth dynasty) the Egyptians were masters of the "Oasis dwellers" [hieroglyphs]. Under the XVIIIth and XIXth dynasties the Oases paid tribute regularly and did a good trade in dates, wine, herbs, etc., and there was no doubt an Egyptian governor, or official, in each Oasis. The Oases have not yet been excavated, but when they are we shall probably find that they were governed by Egypt in exactly the same way as the Sûdân and Sinai. Darius the Great (500 B.C.) understood the importance of Khârgah, and built a temple to Åmen there, ruins of which exist at the present day. The Ptolemies also built temples at various places in the Oases, and the Romans followed their example, and established halting places and dug wells on the plateau between them and the Nile. In the early centuries of the

* The Coptic word for "oasis" is ⲟⲩⲁϩⲉ, and is the same as Uaḥ of the hieroglyphs; the Arabic word is *wâḥ*, and is derived from the old Egyptian. "Oasis" is a Græcized form of the same word.



View from the east of the Temple dedicated to Ȧmen-Rā by Darius the Great in the city of Hebt (Hibis).
(From Hoskins.)

Christian Era many Christians in Egypt were driven to flee from persecution to Khârgah,* where, according to an ancient tradition preserved among the Ethiopians, St. Bartholomew preached the Gospel. Khârgah was a place of banishment, and many dignitaries of state, both civil and ecclesiastical, were deported thither. Nestorius was sent there in banishment, but curiously enough was rescued by a company of the Blemmyes from the Northern Sûdân, who conveyed him back to Egypt, where, however, he soon after died. With the bishops and others who were banished to Khârgah went many well-to-do folk, and by the end of the IVth century there were several monastic institutions there and churches, and the Christians were to a certain extent allowed to worship God in their own way. The size and importance of the Christian settlement is proved by the fine, large, crude-brick tombs which are still to be seen there on the hill to the west of the railway line, about one mile to the north of the temple of Darius. In the second half of the VIIth century Islâm was brought to the Oasis, but the Arabs allowed the halting places on the plateau to fall into decay, and little by little Khârgah became cut off from Egypt.

The first modern traveller to visit Khârgah was Poncet, who left Asyûṭ on October 2, 1698. He says:—

"From that very Day we enter'd a frightful Desart. These "Desarts are extremely dangerous, because the Sands being moving "are rais'd by the least Wind which darken the Air, and falling "afterwards in Clouds, Passengers are often buried in them, or at "least lose the *Route* which they ought to keep. We Arrived on the "*6th of October* at *Heloane;* 'Tis a pretty large Borough, and the last "that is under the Grand Signior's Jurisdiction. There is a Garrison "in it of 500 *Janisaries* and 300 *Spahi's* under the Command of an "Officer whom in that Country they call *Kashif.*† Heloane is very "pleasant, and answers fully its Name, which signifies a Country of "Sweetness. Here are to be seen a great number of Gardens "water'd with Brooks, and a World of Palm-trees, which preserve "a continual Verdure. Coloquintida is to be found there, and all "the fields are fill'd with Senna, which grows upon a Shrub, about "three Foot High. This Drug which is so much Esteem'd in "Europe, is of no use in the Country hereabouts. The Inhabitants "of *Heloane* in their Illnesses, make only use of the Root of *Ezula,* "which for a whole Night they infuse in Milk, and take the day "after, having first strain'd it thro' a Sieve. This Medicine is very "Violent, but 'tis what they like and commend very much. The

* The word used is ኦልዋሕ፡ "Al-Wâh," *i.e.*, the Oasis.

† *I.e.*, *Kâshif*, كاشف, plur. *Kashafa*.



View of the interior of the temple of Hebt, showing the sand which used to reach to the capitals of the pillars. (From Hoskins.)

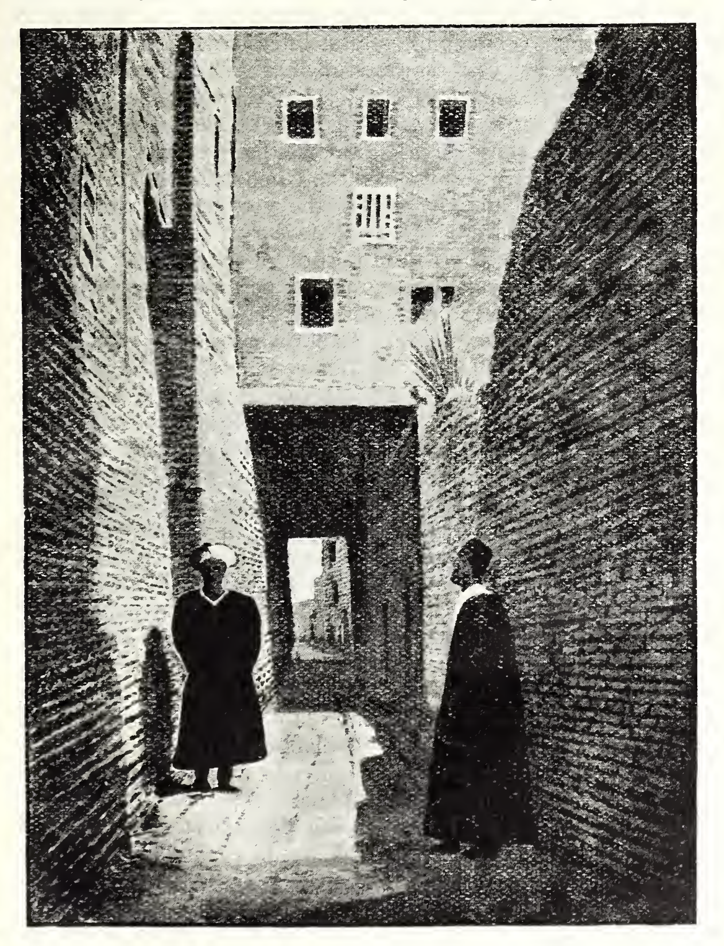
"*Ezula* is a thick Tree, the Blossom of which is blue; it grows into "a sort of Ball, of an Oval Figure, full of Cotton, of which the "People of that Country make pretty fine Cloth. We rested four "Days at *Heloane* to take in Water and Provisions; for we were "to pass thro' a Desart, where there was neither Brook nor "Fountain. The Heat is so excessive, and the sands of these Desarts "so burning, that there is no marching barefoot, without having "one's Feet extremely swell'd. Nevertheless the Nights are Cold "enough, which Occasions troublesome Distempers in those who "Travel thro' that Country, unless they take great Precautions." (*A voyage to Æthiopia made in the year* 1698, 1699, *and* 1700, London, 1709.)

The next important travellers to Khârgah were W. G. Browne (1792–1798) and F. Cailliaud (1815–1818), who published many drawings of the antiquities there. They were followed by Drovetti (1818), Sir A. Edmondstone (1818), Wilkinson (1835), Hoskins (1836), Schweinfurth (1874), Rohlfs (1875), Jordan (1876), Brugsch (1878), etc. In 1894 Captain H. G. Lyons published an account of his investigations at Khârgah, and, as Director of Surveys in Egypt, he caused a full scientific investigation of the Oases to be made by Dr. J. Ball and Mr. H. J. Llewellyn Beadnell. The results of their surveys have been published in a series of volumes of the greatest importance, and their works will remain standard authorities on the physical history of the Oases for many years to come.

Geology.—The depression which forms the Oasis of Khârgah is about 115 miles long, and from 12 to 50 miles wide. On the east side are the hills called Jabal Ghannîmah, and Jabal Umm al-Ghannaim, and nearly halfway across are Jabal Ṭêr and Jabal Ṭarîf. The greater part of the floor of the Oasis is formed of sandstone, and above this come red shales, limestone strata, grey shales, and chalk. According to Mr. Beadnell the total thickness of the exposed strata is about 1,350 feet; the water-bearing sandstone is about 700 feet below the surface. This authority states (*An Egyptian Oasis*, p. 50) that the Oases "are deep and extensive depressions or hollows cut "down nearly to sea-level through the generally horizontal rocks "forming the Libyan Desert Plateaux, and appear to owe their "origin in great measure to the differential effects of subaërial "denudation acting on rock masses of varying hardness and "composition." The height of Khârgah village above the sea is given by Jordan as 68 metres, by Cailliaud 104 and 118 metres, by Ball 86 metres, and by Beadnell 58 metres.

The People.—The inhabitants of Khârgah differ in many respects from the Egyptians. They are of moderate height and

of less robust stature, and their features are not so strongly marked. Their skin is lighter in colour, their faces more oval, and their eyes are softer, and larger, seemingly. They are



An underground street in the town of Khârgah.

gentle in manner, courteous, and civil, but the men move quietly, even languidly, a characteristic due probably to malaria, which is very prevalent in the Oasis. They appear to be of

Berber origin, but the fighting characteristics of this race seem to have disappeared. They suffer greatly from ophthalmia and intermittent fever, and I gathered from the gentleman in charge of the dispensary at Khârgah that he had plenty of patients to occupy his time. The bulk of the inhabitants are very poor, but there are a few very rich men in Khârgah, who own nearly all the trees in the north of the Oasis. The chief occupation is agriculture, and wheat, dhura (millet), rice, and fruit of various kinds (in these days cotton also) are grown with great success. Dates have always been the chief article of commerce, and these are undoubtedly among the very best in the world. Formerly the dates were sold once a year to the merchants of Ar-Rîf (*i.e.*, Asyûṭ), who paid a portion of the price in clothes, ornaments, spices, arms, beads, mirrors, perfumes, metal vessels, nails, tools, etc., and the rest in hard cash, wherewith the taxes were paid to the Government. Each palm above a certain age pays a tax of 15 millièmes (3¾d.) a year, and each 250 cubic metres of water are taxed 1 millième a year. Trades and manufactures there are none, and the people have been content to take what Nature has given them, and neither to seek nor expect anything else. Formerly they only received news of the outside world once a year, in the autumn, when the Dâr Fûr caravan from Asyûṭ passed through Khârgah on its way south, by the famous **Arba'în, or Forty Days' Road**, which is about 1,000 miles long. Men usually wear only one loose woollen garment and a white cotton cap; the women also wear only one garment, but the wives and daughters of the well-to-do wear many ornaments. Many of the children resemble Italian children, and some are pretty. The women make baskets of various shapes and sizes with consummate skill, and the traveller will find their palm-leaf fans and "fly-flappers" very useful. It is interesting to note that far less coffee is drunk than formerly, and that tea is rapidly taking its place.

Population.—The Omdah Shêkh Mustafa Hanâdî informed me that the population of Khârgah was in 1917 5,400, of Bûlâḳ 1,091, of Bârîs 1,316, and of Gannâḥ 373 souls; total **8,160** souls. The number of Christians in the whole district was 20. In 1837 the total population of the Oasis was 4,300 (Hoskins, p. 89). **Religion.**—The inhabitants are Muslims, and, except a Coptic clerk, there was not a Christian in the Oasis in April, 1909. Although they are followers of the Prophet, a great many characteristics of the Christianity of earlier times have been preserved in their manners and customs. Thus they

baptize their children on the second day after birth, and they **bury their dead** in a very simple manner. The **marriage** ceremony is simple also. The man says to the woman "I have taken thee" in the presence of a witness, and the marriage is legal in every respect. Their chief festival of the year is celebrated at Easter, and for weeks before the natives save their eggs and colour them purple with a solution of permanganate of potash. The laws are the laws of their ancestors, and the precedents always quoted are the acts of the "grandfather



Tomb of a Shêkh at Khârgah.

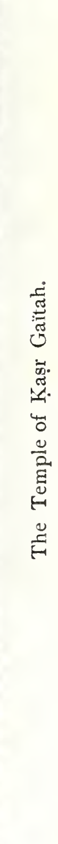
of my father." The fanaticism usually attributed to the Muḥammadan is not found in the Oasis.

Description of Khârgah Oasis.—The Oasis is divided into two parts by a waste of sand which lies across the middle of it. The village of Khârgah lies about a mile and a half from the terminus of the railway. On the northern outskirt are several **Ḳubbas** (pronounced Gubbas) or shêkhs' tombs, among them being the tombs of Atmân, Mukullah, Yûsuf, Arîf, Husên, Ḥammâd, Radwân, etc. Passing over several broad spaces where the cattle usually tread out the corn, the village is entered. The houses are of crude brick, and vary greatly in size. The tops of the walls are decorated with palm leaves,

which are renewed at the great festival of the year. The streets are tortuous, and when those which are covered over are reached, they become very narrow; many are cut through the living rock. It is impossible to see at all in some of them, and a guide is absolutely necessary. They are cool in the hottest weather, and were formerly used as hiding places by the natives when attacked by desert Arabs. Much grain is stored in the houses, and the cattle can be hidden there. The chief shop is a curious place. Further on is a square, with a post office on one side, a small barracks on another, and the Government office of the Muâwin, or Governor, on the third. A few minutes brings the visitor to the **mosque**, the principal walls and minaret of which are built of stone. A few of the stones have Christian symbols upon them, and must have come from some Coptic building; on one stone I saw Egyptian hieroglyphics. Portions of the building must be several hundreds of years old. Close by is a house of entertainment, where tea and eggs, fried on an earthenware platter, can be obtained. There is nothing else to be seen in the village, but the gardens and groves of palms form a lovely setting for this quaint old-world place. Most of the openings in the ground from which



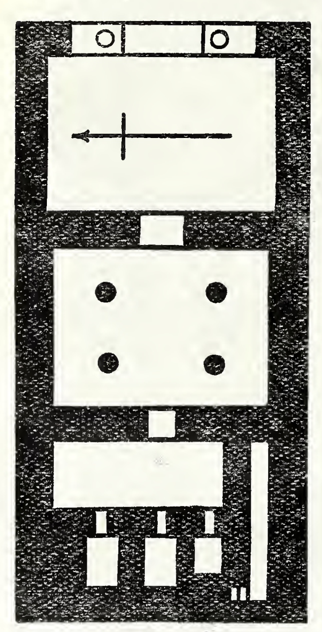
The Mosque at Khârgah.



The Temple of Ḳaṣr Gaïtah.

water rises are artificial, and such pipes as exist, except those recently placed there by Europeans, are of wood. The water is sometimes salt, sometimes it smells of sulphur, and sometimes it is sweet. The fields are usually triangular in shape.

Excursions.—About ten miles south of Khârgah is **Gannâḥ**, near which stand the ruins of a Ptolemaïc temple, which was dedicated to the triad Ȧmen-Rā, Mut and Khensu by Euergetes. Here are two famous wells from which water has been flowing for many hundreds of years. The temple is commonly known as **Ḳaṣr Gaïtah**, or Ḳaṣr al-Guâtah. Six miles from Bûlâḳ is **Ḳaṣr az-Zayân**, where stands a temple built by Antoninus Pius (A.D. 142). It was dedicated to Ȧmen, the god of the city of Hebt, in Egyptian , and to the other gods who were worshipped with him there, as stated in the Greek inscription found in the temple.* The ancient name of the place is **Tchonemyris**, *i.e.*, the town of Khnemu-Rā. The temple was surrounded by a brick wall 230 feet long, 84 feet broad, and 3 feet thick; and the temple itself measured 44½ feet in length and 25 feet in width, and is oriented to the south. In the reliefs Antoninus Pius is seen making offerings to Khnemu, Osiris, Isis, and Horus.



Plan of the Temple of Ḳaṣr Gaïtah.

In the southern half of the Oasis are the following villages: **Dakakin**, a very pretty oasis village; **Bârîs**, the chief village in the south part of the Oasis; and **Maks**, the last village in the south, which is divided into two parts, North Maks and South Maks. About half-way between Bârîs and Maks is **Dûsh al-Ḳala'a**, where are found the ruins of the famous temple of Dûsh, or Kysis, to give the place the classical form of the Egyptian name

* The temple and vestibule were repaired and renewed under Avidius Heliodorus, governor of Egypt, Septimius Macro being Commander-in-chief, and Plinius Capito general of the forces.

Kus. The temple stands on a hill, within a very thick wall in which are built several staircases and galleries; the total length of the enclosure was about 250 feet. The temple was built in the 19th year of Trajan, *i.e.*, A.D. 116, when Marcus Rutilius Rufus was Prefect of Egypt,* and measures 48 feet in length, 25 feet in width, and is oriented to the south. The vestibule is 13 feet in length and 16 feet in breadth, the portico next it measures 27 feet in length and 18 feet in breadth, and has four columns. Three doorways in the north wall lead into two long chambers and the sanctuary, which had a division across the centre. The length of this portion of the temple is about 23 feet. Both the chambers and the sanctuary have arched roofs.

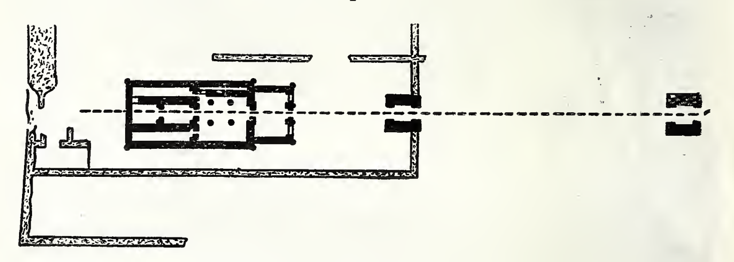


Remains of a building at Al-Ḳaṣr. (From Cailliaud.)

On the north wall are sculptures in which the Emperor Domitian is represented making offerings to Horus. About 180 feet from the temple is the ruin of some brick building, probably of a monastery; it is about 60 feet in length, and is remarkable as containing a true Gothic arch. The age of the building is unknown.

* A correct copy of the Greek text of the inscription on the first pylon is given by Dittenberger (ii, p. 421).

Antiquities of Khârgah.—The most important of these is the famous temple at Hibis built by **Darius I**, 521 B.C., and added to by Darius II, and restored by Nektanebês, 378–360 B.C.; it is the only Persian temple in Egypt. It is about 150 feet in length and 60 feet in breadth, and has a forecourt and three pylons; its enclosure was about 500 feet long. It is oriented almost due east and west. On the north side it is almost hidden by thick groves of palm trees, and close by it runs a clear stream of water; on the south is a large pool of water, which probably occupies the site once held by the sacred lake. On the north side of the first pylon is a Greek inscription of 66 lines dated in the second year of the reign of the Emperor **Galba** (A.D. 69), and from it we learn that the inhabitants had made complaints about the manner in which they were ruled and had formulated their grievances in various petitions to the authorities. The inscription is a decree in which redress



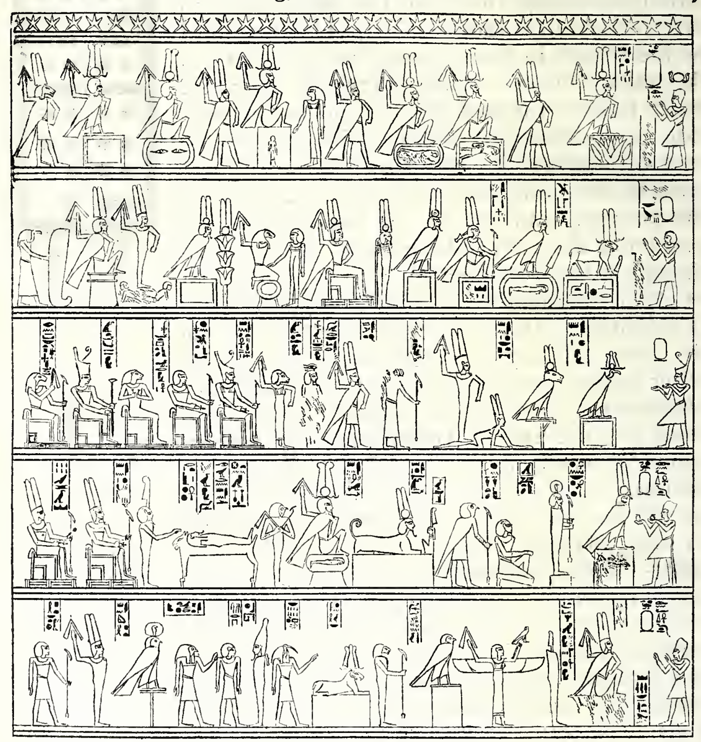
Plan of the Temple of Kysis.

is promised to the people, and it lays down regulations concerning taxation and orders that henceforth the persons of men shall not be seized for debt, that men shall not be made tax-collectors against their will, that no freeman shall be imprisoned, that a man shall not be tried twice for the same offence, etc. On the south side of the same pylon are Greek inscriptions, one of which was cut in the reign of the Emperor Tiberius **Claudius.** Between this pylon and the gateway are the remains of an avenue of sphinxes, or rams, and the first and second pylons were joined by a similar avenue, nearly 50 feet long. The third pylon is 140 feet from the second, and on it are sculptures, in which Darius is represented making offerings to Åmen and other gods. The vestibule is 25 feet from the third pylon, and is about 52 feet long and 32 feet broad. At each side of the vestibule is a doorway. The

temple proper is about 150 feet long. The hall contains 12 columns, the pronaos four columns, and the sanctuary has likewise four columns, and several small chambers on each side of it. Strictly speaking, there are two sanctuaries in this portion of the temple, a fact which is proved by the breach in the sequence in the reliefs on the walls. On the south side are the staircase, which leads to the roof, and a crypt; on the north side are the staircase and the chambers which were dedicated to the worship of Osiris. There are also three doorways, one in the hall, one in the pronaos, and one in the sanctuary. The portion of the temple here called the pronaos, though it has been thought to be the chamber in which offerings were presented, is peculiar to this temple. In it we find representations of the king offering jars of wine to Amen and other deities, and inscriptions containing a list of offerings, a wonderful **Hymn to Rā** in 46 lines, and the **Secret Ordinances of Åmen,** which, it is stated, were copied from wooden tablets. As the visitor passes into the sanctuary he will see cut on the door jambs inscriptions in the so-called "enigmatic writing." The reliefs in the sanctuaries are of great interest mythologically, and it is clear that they deal chiefly with the ceremonies which were performed annually in Egypt in connection with the festivals held to commemorate the death, burial, and resurrection of Osiris. Many of the gods have forms which appear to have been unknown about 1500 B.C., but several of them are cut upon the well-known "Metternich Stele." The outside of the temple is covered with poorly executed sculpture of little interest. The scenes are presentations of offerings to the gods. In some places the decorations are unfinished. For the cartouches of the kings who restored this temple see the List of Kings on pp. 727–749. Behind the temple is a small detached building, the use of which is unknown, and to the south-west of the west


Plan of the Temple of Hibis.

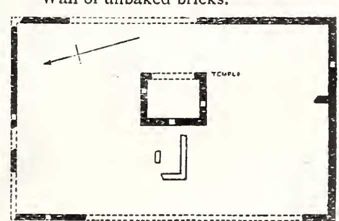
end is another detached building, which Hoskins thought might have served as a dwelling for the priests. Compared with the great temples of Karnak and Abydos, the temple of Darius is inferior both as regards plan and execution. Still, it is a remarkable building, and should be seen and carefully



Figures of the gods and mythological scenes from the Sanctuary of Osiris in the Temple of Darius at Khârgah. (From Hoskins.)

examined by every lover of Egyptian architecture. It is unfair to contrast it too closely with highly-finished buildings like the Temple of Seti I at Abydos, for we do not know what it would have been like had it been completed. It must also be remembered that Khârgah is about 130 miles from the Nile, and that workmen and tools would have to be transported from Egypt across that terrible stone plateau to build the temple. It may reasonably be asked, Why did Darius and the Ptolemies

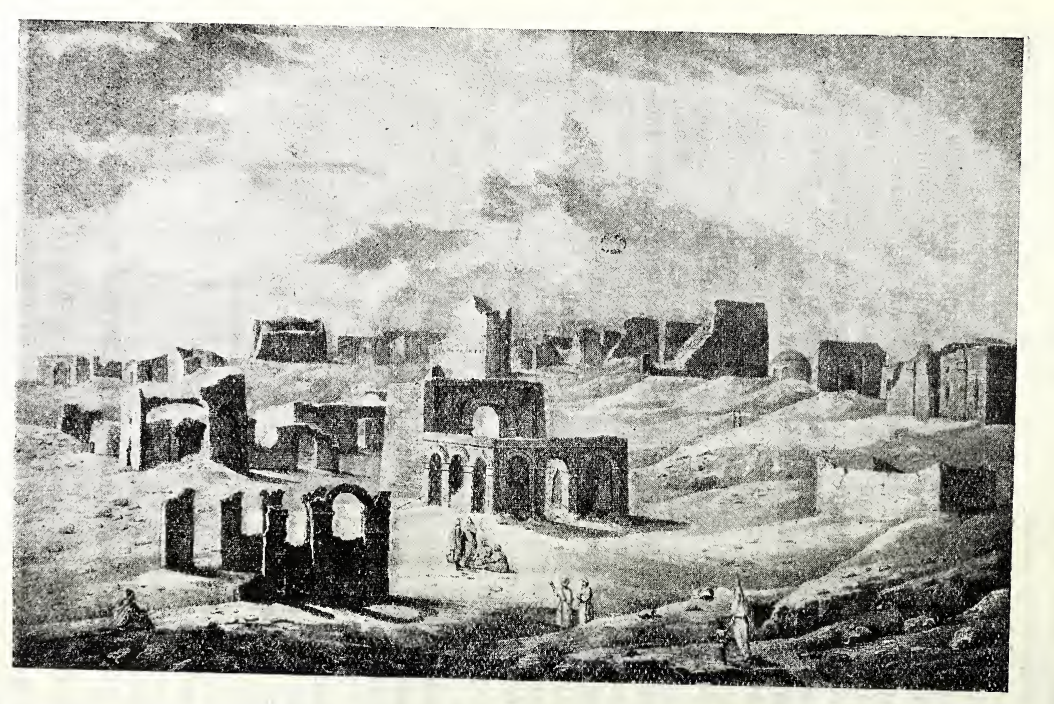
and the Roman Emperors build so many fine temples in this Oasis? None of the kings of Egypt built temples solely with the view of spreading the knowledge of their religion among the outlying peoples of their Empire, for none of them possessed the spirit of missionary enterprise. They built temples in the Sûdân and the Oases and Sinai solely with the idea of encouraging and developing trade and commerce, and temples and their neighbouring buildings served both as fortified outposts and storage places for gold and other merchandise. The great trade route from Egypt to Dâr Fûr passed through the Oasis of Khârgah, and the temples stood near it, so that the garrisons might afford protection for the caravans and the goods which they brought from the far south. The temple of Dûsh (Kysis) was at the south end of the Oasis, and the temple of Khârgah at the north. Wherever an important trade centre existed there was a temple built. Darius, the Ptolemies, and the Romans developed the Sûdân trade to a remarkable degree, and the temples of the Oasis prove that the products of the south were of great value. In recent years the glory of the old **Forty Days' Road** (Darb al-Arba'în) has departed, and the British have caused most of the Sûdân trade to follow the course of the Nile. Should that route, however, become unsafe, the old desert roads would be again used by the merchants, and caravans would travel to the south by the routes which they followed for thousands of years.



Plan of the Temple of Nadûrah.

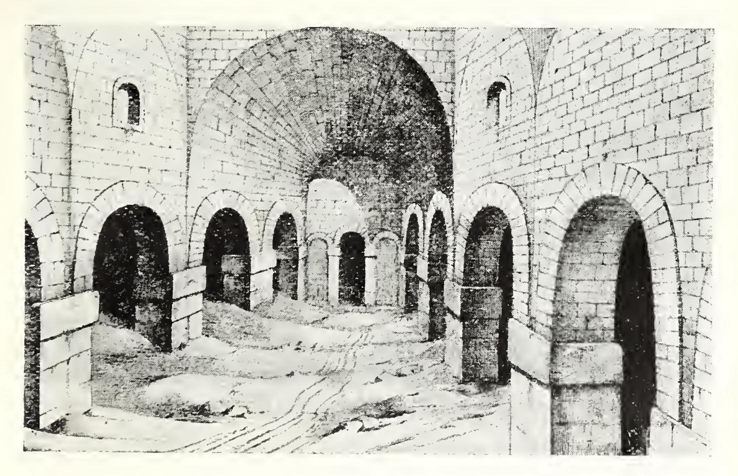
The temple of **Nadûrah** stands on a hill rather more than half a mile to the south east of the temple of Darius. The main building is about 36 feet in length and 26 feet in breadth, and stands in an enclosure surrounded by a brick wall. It was probably built by Antoninus Pius about A.D. 140.

Of special interest is the early **Christian Cemetery**, called **Al-Baghwât**, البغوات, *i.e.*, "the tombs," which stands on the southern slopes of Jabal Têr, about a mile from the temple of Darius. Here are the ruins of about 200 tombs. These rise one above the other, and as they are built in streets the place may be fittingly described as a city of the dead. The tombs are built



General view of the Christian Cemetery at Khârgah.

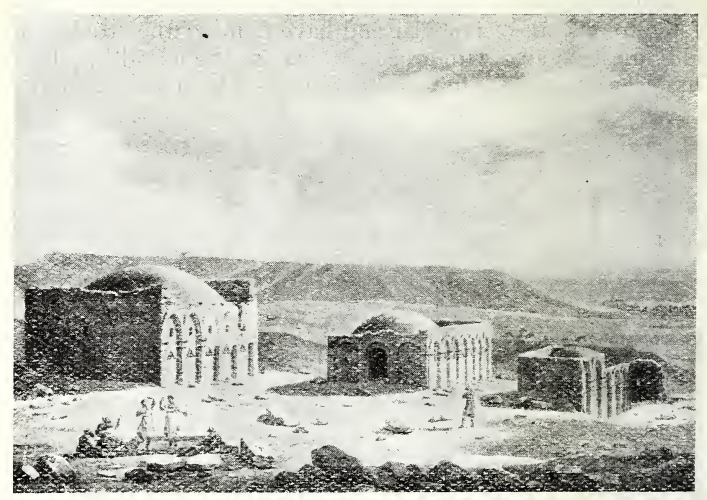
of crude brick, and many consist of a single chamber measuring about 20 feet in length by 15 feet in width. Inside many have arches with recesses, and the doorways are usually ornamented with pillars. The bodies were laid in pits, like the mummy pits of Egypt, and even in Hoskins' days many of the tombs had been plundered by the natives, who left portions of the grave-clothes of the dead lying about in all directions. Most of the tombs are rectangular and have domes; the fronts and sides are decorated with arches, which are supported by pillars. One is a large building, and has aisles, like a church, and a



Interior of a funerary chapel at Khârgah.

few are decorated with painted figures of Christian saints. The building with the aisles was probably a funerary chapel, in which services commemorative of the dead were held. Its façade is ornamented with eleven columns, supporting ten arches; under each arch is a window, and a triangular niche. On the inside, the visitor will notice the Egyptian symbol of life ☥ *ānkh*, which the early Christians identified with the cross. In one tomb, which is well worth a visit, the inside of the dome is covered with pictures representing Adam and Eve; Abraham, Isaac, and Sarah, with a ram and a sacrificial altar; Daniel and the lions' den; Noah in the Ark, wherefrom a dove is departing; Justice with the Scales; and figures of Christ,

Isaiah, Mary, Paul, Thekla and Irene. The legends in Greek describe the scenes depicted. There is another tomb decorated in the same manner, but the scenes are more elaborate and in some respects more interesting. The artist attempted to depict the principal scenes in Bible history, and even some of the



The Christian Cemetery at Khârgah. (From Cailliaud.)

Parables, for in this tomb we find figures of the Wise and Foolish Virgins. In the centre of each tomb is the pit wherein the body was buried, after it had been embalmed and swathed in linen. These tombs were built for wealthy Christians who resided in the Oasis, and they prove that at the time when they were built the town of Hebt was in a flourishing condition.

In 1908–9, Mr. Lythgoe and Mr. Winlock began to excavate a portion of the Christian cemetery at the expense of Mr. Pierpont Morgan. During the winter of 1909–10 they conducted a series of excavations at the great temple of Hibis, and Prof. Maspero appointed M. Émile Baraize to consolidate and restore the temple whilst it was being cleared by them. They cleared the ground outside the temple, and on both sides of the temple excavations were made down to the ancient surface level. A number of reliefs, hitherto buried, were brought to light, and in one of them Darius is seen in a boat picking

flowers to offer to the god Menu, and in another the god Sutekh is seen slaying the Serpent of Evil. Mr. Winlock states in his report that of the existing temple two stages of construction have been discovered earlier than the reign of Nektanebo, also remains of additions and changes which were made in Ptolemaïc times, and have been hitherto unknown. The remains of an exterior stone wall built by Ptolemy II have been discovered, and portions of reliefs of Ptolemy III, etc. The temple flourished during the whole of the Ptolemaïc Period, and all through the early centuries of our era. In Christian times a small church was built in the north-east corner, and fragments of Arab glass prove that the Oasis was occupied by the Muslims.

The **Oasis Wells.**—According to Mr. Beadnell there are 230 native-owned wells in the Oasis, which yield a total discharge of 295 ḳirâts, or 8,000 gallons a minute, *i.e.*, 11,500,000 gallons a day. The largest well in the Oasis is 'Ain Istakhrabat Gannâḥ, with a discharge of between 700 and 800 gallons per minute. Under the rule of the Romans many important irrigation works were carried out in the Oasis, and they made trenches and drove underground aqueducts through the solid rock with consummate skill. The most remarkable of these aqueducts are found at Umm al-Dabâdib, about 22 miles north-west of Khârgah, and when one of them was cleared out in 1900 water again began to flow. This supply enabled the authorities to reclaim about twelve acres of land from the desert. Mr. Beadnell explored one of the underground aqueducts and found that it was 4·6 kilometres long, and he states that the excavation of the manholes or vertical shafts which connected it with the surface must have been a gigantic task. One of these was 175 feet deep, and the construction of the four subterranean aqueducts, with their 600 or 700 vertical shafts, which he describes, necessitated the excavation and removal of 20,000 cubic metres of solid rock. The water which flowed from the aqueducts was sweet and had a temperature of 87° Fahrenheit. The bores of many ancient wells are lined with casing made of palm or acacia wood, and the timbers were fitted together with water-tight joints. In spite of all the efforts which are being made to keep up the water supply in the Oasis, it is becoming clear that many parts of it must eventually be overwhelmed by the **sand dunes,*** which are usually of a crescent or horse-shoe

* The natives call the sand dune *burkân* (Arabic بُرْكَان, plur. بَرَاكِين).

shape. In size they vary from 1 or 2 metres from horn to horn to 200 or 300 metres, and they vary in height from 1 to 130 feet. In high winds the dunes move bodily, and they travel from 30 to 60 feet in a year, even over rising ground. The native builds fences to keep the sand off his crops, but in the end he finds his land overwhelmed by the sand which piles itself up against the fences. The history of the Oasis is practically that of one long endless fight of man against sand.

The principal export is **dates**, the various varieties of which are much appreciated all over Egypt. The number of date-palms in the Oasis is between 65,000 and 70,000, the most important groves being at Khârgah, Gannâh, Bûlâḳ, and Bârîs. A mature palm bears about 150 lbs. of dates each year, which sell for from 45 to 50 piastres, *i.e.*, between 9*s.* and 10*s.* Certain kinds of dates are reserved for use in the Oasis, and these are kept in earthenware jars, as in the Sûdân; the dates exported are sold "in the lump," in palm-leaf baskets, and no attempt is made to pack them. It is a great pity that the best Khârgah dates cannot be packed in boxes as is done with the dates at Baṣrah, on the Persian Gulf, for they would certainly fetch a good price in the markets of Cairo. Date palms begin to bear fruit when about 20 years old, and they continue to bear fruit for 100 years; many of the most valuable trees are said to be over 100 years old. During the last twenty years the **potato** has been cultivated at Khârgah with great success.

In connection with the Khârgah Oasis, Professor Maspero has made some interesting remarks about the Egyptian word which is used for "oasis," viz., UAḤET, [hieroglyphs]. This word is akin in meaning to [hieroglyphs], also pronounced *ut* or *uaḥet*, which signifies the "apparel of a mummy," *i.e.*, the swathings with their jewellery and amulets, in fact, that with which the mummy is enveloped or covered. Dr. Brugsch thought that an oasis was so called because it was covered up, or enveloped, with sand, but Professor Maspero's view is different. Now, when Herodotus speaks (iii, 26) of the expedition which Cambyses sent against the inhabitants of the Oasis of Jupiter Ammon, he mentions that they arrived at the town of Oasis, a distance of seven days from Thebes. The Oasis here referred to is, of course, Khârgah, which, he explains incidentally, is called in his own language Μακάρων νῆσος, *i.e.*, "Island of the Blessed." This information is important, for it proves that the

people possessed a legend which made the blessed live in the Oasis of Khârgah; and as we know from Egyptian texts that Tchestcheset, *i.e.*, Dâkhlah, was the abode of the "Spirits," it is tolerably certain that the oases of Dâkhlah and Khârgah were regarded as a sort of paradise, the position of which was undefined and vague. We have already seen that "Uaḥet" means a mummy's shroud, and a very slight modification of the word, or the addition of a sign, will make it mean first "mummy" and then "place of mummy"; thus the Oasis of Khârgah was called "Uaḥet" because an early belief made the spirits of the mummified or blessed dead to dwell there. This legend must be very old, for the name "Uaḥet" is mentioned on a stele of the XIIth dynasty. The god of the Oases was Anubis, and Anubis was incarnate in the jackal; therefore the Jackal-god became the god of the mummies in the Oases, and later of all the dead. This explains how the jackal-headed Anubis comes to be the god and guide of the dead, and why in funeral scenes he stands by the bier and embraces the dead. It was believed that he met the spirit and soul of the deceased when they left their tomb in the mountains of the Nile Valley in order to set out for paradise, and that he led them across the desert to the "country of the mummies," where they would join the companies of the blessed dead.

The **Oasis of Kûrkûr** lies at a distance of about 70 miles west of Aswân, but the most direct road to it from the Nile starts at Ar-Rakabah, or Contra Ombos. This Oasis was used chiefly as a halting place for caravans on their way to Asnâ from the Oasis of Salîmah, where, when the slave trade was in a flourishing state, so many desert routes converged. From Kûrkûr a road runs to Al-Khârgah. Between Kûrkûr and Dûngûn, a little to the north of the latter place, is a large salt plain, from which large quantities of rock salt were brought into the village of Al-'Azîz, to the north of Aswân, and sold in the Aswân bâzâr.

The **Oasis of Salîmah**, which is in the Sûdân, lies due west of the village of Tankûr, and west of a ridge of mountains which are about 85 miles from the Nile, in 21° 14′ 19″ lat. N., and in long. 27° 19′. The Oasis consists of two parts: the first has a diameter of about 800 feet, and contains many date trees and tamarisks · the second has a diameter of 1,000 feet, and is equally fertile. A marsh full of reeds lies between them. When Cailliaud visited the Oasis between 1819 and 1822 there were only 300 or 400 trees there. A little to the south-

west of the southern portion he saw the remains of a small square house, which was said to be the home of a princess called Salîmah, who was the head of a terrible band of warriors. There were no ancient Egyptian ruins to be seen at Salîmah Oasis in Cailliaud's time. During the first half of the nineteenth century Salîmah was a most important place for caravans, and it formed a point of convergence of all the great slave and trade routes of North-East and Central Africa. The roads from Al-Fashar and Al-'Obêḍ in the south met here, the road from Berber in the east joined them at this place, and the great caravan road to the Oases of Khârgah, Dâkhlah, and Sîwah started here and ended in Morocco.

Many other very small oases exist at various places in the desert, and the greater number of them are inhabited, at least during certain seasons of the year. Each of the large tribes of nomads who pasture sheep and herd cattle in the desert owns a number of such oases, and the natives fight fiercely for the possession of them. Many of these oases are very small, and the palms in each only produce enough dates to feed two or three men. They are, however, invaluable to the nomads, who take refuge in them, with their cattle, during violent sandstorms.

5. Cairo to Jerusalem by Railway.

Since the construction of the desert railway to Palestine, Jerusalem has been brought within a twelve hours' journey of Egypt, and a visit to the Holy Land has become one of the most attractive excursions from Cairo. Through trains with restaurant and sleeping cars leave Egypt (Ḳanṭarah) three times a week in connection with the trains from Cairo to Port Sa'îd. The journey to Jerusalem is one of great interest.

Ḳanṭarah to Ludd (Lydda).

From Ḳanṭarah, a military station on the Suez Canal, the line runs through the arid desert to Philistia, the same desert through which Jacob travelled to visit his lost son in Egypt; the same desert through which Sir Archibald Murray's Expedition marched, driving the enemy into Gaza and Beersheba. It is an impressive journey to those who know the desert only by name. At Gaza (Ghazzah) we see the famous heights called

Gabal al-Munṭâr, the hill to which Samson carried off the gates (Bâb al-Muntâr), and which our troops so gallantly stormed. The line follows the route of the retreating Turks to Ascalon and Ashdod, once powerful cities, now mere villages, and through the "country of the Philistines," in spring one gigantic cornfield, to the Junction at Ludd.

Ludd Junction to Jerusalem.

Ludd (the Lôd of Ezra ii, 33, and the Lydda of Macc. xi, 34, and Acts ix, 32), is of special interest to Englishmen as the birthplace of Saint George, the patron saint of England. The church that holds his tomb stands on the site of the Church that the Crusaders built over his tomb in the second half of the twelfth century. From Ludd the line runs through the dense olive groves that surround the little town of Ramleh, the seat of the Bishop appointed by the Crusaders in the eleventh century. Then, taking a southerly direction, the line crosses the plain of Sharon (Isaiah xxxv, 2 ; lxv, 10), which in spring delights the eye with its myriads of wild flowers. On every side are hills and valleys and sites of towns which from our childhood we have read about in the Bible ; moreover, a great deal of the country through which our troops passed in their rapid advance from Gaza to Beersheba is within view.

About a mile and a half away on the right is 'Âkîr, the Ekron of Joshua xiii, 3, a city of the Philistines to which the Ark of the Covenant was brought from Ashdod, and whence it was conveyed to Beth Shemesh (1 Sam. v, 1).

About three miles south of Ekron is the hilltop village of Al-Mughâr, which may be identified with Maḳḳêdâh (Joshua, x, 16 ; xv, 41), where the five Amorite Kings hid in a cave after the battle of Ajalon. It was here that General Allenby encountered the most determined resistance of the Turks in his advance. Soon the train passes round the base of Tall Gezer, a prominent and solitary hill (on the left of the line). On the top of this hill once stood the important Canaanitish City of Gezer (Joshua xvi, 10 ; Judges i, 29). The city is frequently mentioned in the history of the wars between David and the Philistines. The Crusaders under Baldwin IV defeated Saladin here, and the place was carried by the magnificent rush of Allenby's mounted troops, who charged up the hill from the south.

From Sagad station the line runs eastward and parallel with the ancient highway from Ekron along which the kine took the Ark of the Covenant to Beth Shemesh (1 Sam. vi, 9 :

1 Kings iv, 9), which is now called 'Ain ash-Shams. This is the famous "valley of Sorek" (Judges xvi, 4), and many of the scenes in the life of Samson and Delilah occurred in the immediate neighbourhood. A few minutes after leaving Junction Station, Zorah (Sar'a, the Zoreah of Joshua xv, 33), the birthplace of Samson, is seen standing conspicuously on the summit of a lofty hill which rises directly above the railway track on the left. On another hilltop, to the right and exactly opposite Zorah, is 'Ain ash-Shams, the ancient Beth Shemesh.

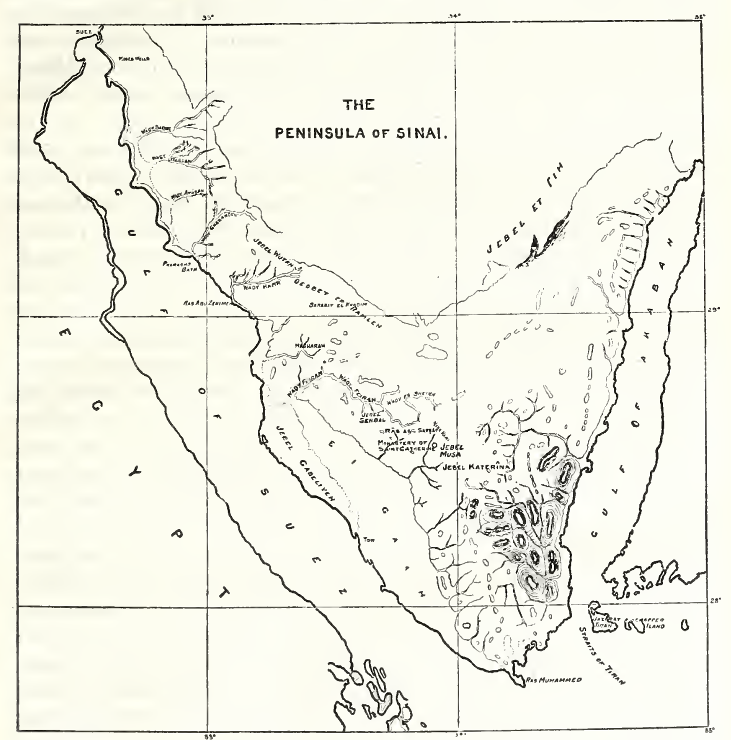
The next station, Dêr 'Abân, marks the site of Ebenezer (1 Sam. iv, 1), where the Philistines defeated the Israelites and captured the Ark in the time of Eli. In was to this place that Samuel referred when he set up the stone "Eben-ezer" between "Mizpeh and Shen" (1 Sam. vii, 12) The Wâdî Aṣ-Ṣarâr, the savage and rocky gorge that forms the pass to the highlands near Jerusalem, is now reached. As soon as the train enters this wild ravine there comes into view a large cave in a beetling precipice, overhanging the valley and several hundred feet above it. This is the rock of Etam (Judges xv, 11), on which Samson sought refuge from the Philistines, and where the men of Judah bound him with cords and delivered him to the enemy. At the sight of the Philistines he broke his bonds, and taking up the jawbone of an ass, slew a thousand Philistines with it. The place where this combat took place is called the "Height of the Jawbone."

The line winds and doubles along this very remarkable and tortuous valley to Bittir, the site of a very ancient Canaanitish city which has been identified by some with the Beth-arabah (Joshua xv, 61) conquered by Joshua. The inhabitants of the town took a prominent part in the rising of the Jews against the Romans in the second century of our era under Bar Cochba, and when the Romans captured it they slew the Jews by hundreds. Leaving Bittir, the line soon enters the large and fertile valley of the Rephaim, or "Giants," where David defeated the Philistines (2 Sam. v, 18), and in half an hour after leaving Bittir the train reaches the terminus of Jerusalem, which is nearly a mile distant from the time-honoured city.

Arrangements for sight-seeing in Jerusalem and for visiting Lower Palestine, Samaria, or Galilee, with private dragomans, may be made at Messrs. Cook's Office in David Street, Jerusalem, or at their Cairo Office before leaving Egypt.

6. Cairo to Mount Sinai.

For the traveller who has the time to devote to the journey and is prepared to do a certain amount of "roughing it," nothing can be more delightful than an expedition to the sites in the Peninsula of Sinai, with certain places in which ancient tradition has associated some of the most remarkable of the



The Peninsula of Sinai, showing positions of Mount Sarbâl, Mount Mûsâ (Sinai ?), and Ras aṣ-Ṣafsâf (Horeb).

events recorded in the Bible. Apart from this consideration, moreover, this weird country is worth seeing for the sake of its Egyptological associations, and for its desert and mountainous character, and for its scenery, which is always fine ; sometimes it is picturesque, at other times it is awe-inspiring and, in its mountain fastnesses, it is savage and even terrible. It should

also be remembered that the traveller who has made the journey to Jabal Sarbâl,* and Jabal Mûsâ, which is now generally identified as **Mount Sinai,** and Jabal Râs aṣ-Ṣafṣâf (Horeb ?), and has visited the desert places which have been sanctified by generations of holy men, has acquired an experience which will enable him to understand desert life past and present, and a knowledge of the conditions under which monks and anchorites lived, which can be obtained in no other region nearer than the mountains of Armenia and Persia, which lie on the northern and eastern borders of Mesopotamia. In a short description of the routes which enable the visitor to see the Holy Mountain, and the sites of the mines worked by the Egyptians for thousands of years, and the Monastery of St. Catherine, it is out of the question to attempt to enumerate all the identifications of sites mentioned in the Book of Exodus, especially as authorities differ in many important particulars. For these and many other details which do not fall within the province of a book of this kind, the reader is referred to the splendid *Survey*†, published by the Palestine Exploration Fund, which contains accurate maps, lists of names, archæological and historical notes, and a vast amount of information on all subjects connected with the peninsula. This is the most exhaustive work on Sinai which has ever appeared, and it contains, without doubt, the best description of the peninsula hitherto published. Professor Hull's small but excellent book, *Mount Seir, Sinai,* etc. (London, 1885), will be found most useful; Ebers' *Durch Gosen zum Sinai* (Leipzig, 1881) contains very valuable information on Sinai; and by those whose interest lies chiefly in the Bible narrative of the Exodus and in the wanderings of the children of Israel, the late Dean Stanley's *Sinai and Palestine*, and Palmer's *Desert of the Exodus* (London, Cambridge, 1871), and *Ancient History from the Monuments, Sinai* (London, 1892), should be read. Every traveller to Sinai will, of course, have with him a copy of the Bible.

Among other works on Sinai must be mentioned Laborde, *Voyage de l'Arabie Pétrée*, 1830; Lottin de Laval, *Voyage dans le Péninsule Arabique*, 1855–1859; Lepsius, *Egypt, Ethiopia, and Sinai*, London, 1853; Brugsch, *Wanderung*

* The ج *g* is pronounced like *j* in the Sinai District.

† *Ordnance Survey of the Peninsula of Sinai*, 1869, consisting of one volume of text, three volumes of photographs, and a portfolio containing a map.

nach der Turkisminen, 1866. The maps, plans, views and inscriptions published by Lepsius in his *Denkmäler* are accurate and good, and they have formed the base of all the archæological works on Sinai which have appeared since they were issued. A most valuable book for the study of the archæology of Sinai is Raymond Weill's *Recueil des Inscriptions Égyptiennes du Sinai*, Paris, 1904. The author has revised the texts published by the late Dr. Birch in the *Ordnance Survey*, and thrown much light upon obscure portions of the history of the occupation of the Peninsula of Sinai by the Egyptians.

The **best months of the year** for visiting Sinai are March, and from October 15th to November 15th; in exceptional years, when summer or winter is earlier than usual, the journey may conveniently be made a fortnight earlier. The **time** spent on the journey depends, of course, upon the traveller himself, but unless he wishes to make special investigations of certain outlying districts, or to make collections of natural things, 16 to 20 days will be sufficient for him to see all the principal places in the peninsula, including two to four days' visit to the Monastery of St. Catherine. As concerns **expense**, that also depends entirely on the amount of comfort which the traveller requires on the journey. He who is content to travel without a tent, and will carry with him tins of meat, jam, milk, biscuits, etc., a small spirit stove with a supply of methylated spirit, and three or four good rugs, and is willing to ride a camel 10 or 12 hours a day, may perform the journey cheaply in eight to 10 days. In the case of a party which includes ladies and men unused to desert life under such conditions, tents and beds, and a cook with a portable cooking stove, and an ample supply of provisions, wine, etc., must be taken. The hire of camels and attendants is in this case an important item in the expenses. Bakshîsh must, of course, also be considered. It must be remembered that in Sinai, as in all places visited by tourists, the expenses tend to increase rather than decrease in the case of strangers or those who are unacquainted with the people and country, and it is therefore best to apply to Messrs. Thos. Cook & Son, who will supply an estimate for the entire journey, in which a fixed sum per day will be charged per person according to the number of the party. Travellers are thus saved all the trouble in bargaining about the hire of boats, camels, and servants, and it is unquestionably the only way of performing the journey in comfort. In addition to the articles required for personal use

the traveller may, with great advantage, take with him a supply of cheap pen-knives and native-grown tobacco, and a few cheap compasses for the men of Sinai (the latter being much prized, as by their means they are able to find the direction in which to pray when travelling in the desert), and small packets of needles, thread, cakes of highly scented soap, small mirrors (to be obtained very cheaply in the native bâzârs of Cairo), and a supply of bright-coloured Manchester cotton handkerchiefs, which cost a shilling or so apiece in London, and are greatly prized in every desert in the East. Gifts of the kind are relatively inexpensive, and in many places are valued far more than presents of money.

The **Peninsula of Sinai** is one of the most mountainous deserts in the world, in short, "a desert of rock, gravel, and " boulder, of gaunt peaks, dreary ridges, and arid valleys and " plateaux, the whole forming a scene of stern desolation which " fully merits its description as the 'great and terrible desert.'" The peninsula has on its eastern side the Gulf of 'Aḳabah, and on the western the Gulf of Suez. If we regard Suez, 'Aḳabah, and Râs Muḥammad, the most southerly point of the peninsula, as the three points of a triangle, we find that the two sides measure 186 and 133 miles respectively, and that the length of the base is 150 miles; the area of the peninsula is 11,500 square miles. Nearly the whole peninsula is mountainous. The valleys fall away to the east and west towards the coasts from a range of mountains which practically divides the main portion of the peninsula into two parts; the highest point of the range is Jabal Zabîr-Katharina, which the officers of the Ordnance Survey estimated to be 8,550 feet high.

Geology.—A broad belt of dark red or brown sandstone stretches across the peninsula, and reaches nearly from shore to shore. Southward from the margin of the sandstone belt extends a triangular mass of mountains, formed of plutonic and metamorphic rocks, chiefly granites, and syenites, and varieties of gneiss and mica-schist. On the western seaboard, south of Suez, is a narrow strip of territory with rocks of cretaceous, tertiary, and post-tertiary formations.

Population.—The population of Northern Sinai, including Al-'Arîsh (3,935 inhabitants), was 4,385 in 1917; and of Southern Sinai 5,430, in the same year. The peninsula is inhabited by a number of nomads, who earn their living chiefly as carriers of stores of various kinds, and as traders who journey between Cairo and Suez and dispose of any charcoal, millstones, gum-

arabic, etc., which they have acquired. Among other things sold is the *munn*, or "manna," which is a gummy, saccharine substance exuding from the *ṭarfah*, or tamarisk tree. Palmer describes the Arabs of Sinai as a hardy, well-made race, and the men, though clad in the most wretched tatters, have often a certain air of dignity about them. Their dress is a white shirt, with long open sleeves, fastened round the waist with a leather girdle, and over this is worn the 'abba, or long robe of goat's or camel's hair. On their heads they wear a turban and the *fez*, and on their feet fish-skin sandals. The women wear a loose blue frock, a blue mantle, strings of beads, amulets made of metal or glass, etc.; they tattoo their chins. Matrons plait their hair into a knot, and maidens dress their hair in short curls over their foreheads. The children wear nothing, except in the cold weather, when they sometimes have pieces of goat skin, which they turn towards the direction of the wind and try to shelter themselves behind them. The Sinai Arabs are for the most part Ṭâwarah, *i.e.*, Arabs of Ṭûr, a town on the eastern side of the peninsula; in 1899 their males were said to be 4,000 in number. In 1917 the population of Ṭûr was 1,045. The Ṭâwarah are divided into seven tribes, which Palmer enumerates in the following order:— (1) Ṣawâliḥah; (2) Awlâd Sa'îd; (3) Garârishah; (4) 'Alêḳât; (5) Amzênah; (6) Awlâd Shahîn; (7) Gibâlîyah. There are several subdivisions of these. Each tribe has three shêkhs. In the matter of laws, life is taken for life, and adultery, though usually punished by death, may be atoned for by the payment of money or camels. The Sinai Arabs pray twice daily, and believe in a general resurrection, and offer up sacrifices at the tombs of their saints, especially to Nabi Sâliḥ and Nabi Mûsâ.

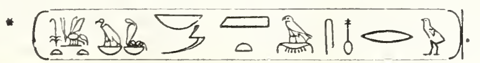
According to Lord Cromer's Report (Egypt, No. 1, 1906) there are said to be about 30,000 dwellers in the peninsula, which he describes as a "vast waste land." They are all of Arab origin, and are said to be the descendants of the soldiers whom Justinian sent to Sinai in the VIth century of our era. They still observe their old tribal customs, and the system of taking blood-money, and the hereditary "vendetta," are in full force. The blood-money is fixed at forty-one camels. Early in 1905 the Sinaitic people became very restless, several raids took place, and two brothers were murdered. The Egyptian Government sent Mr. Jennings Bramly to Sinai to report on the country generally, and in a short time he settled thirty or forty cases, and the murderers of the two brothers

were hanged at Nakhl on May 28th. A well-equipped camel corps has been organized; a rest-house, mosque, barracks, and police station have been built at Nakhl. On February 20th 1906, two Staff Officers left Constantinople for Alexandria, and on their arrival in Cairo they lodged in the house of the Ottoman Delegate Mûkhtar Pâshâ, and held no communication with any member of the Egyptian Government, or with H.M.'s Agent and Consul-General. On March 4th they suddenly left for Bêrût, whence they were to proceed to 'Aḳabah. Meanwhile Turkish troops occupied Tâbah, Al Gattar, and Marashash, and additional troops were dispatched from Damascus and other Syrian towns to the frontier. It became evident that the "Ottoman Government were abusing "the patience of H.M.'s Government and trifling with the "question at issue." The boundary between Turkey and Egypt at Rafah was marked by a tree, on each side of which was a marble pillar; about this time the pillars were pulled down and removed in the Turkish interest. The Report of the Officers who had gone to 'Aḳabah was received on April 2nd, and was found to be "eminently unsatisfactory." The Porte then referred the matter to Mûkhtar Pâshâ, who boldly stated that "the Peninsula of Sinai consisted only of the territory lying "south of a line drawn directly from Akabah to Suez, and the "boundaries between Egypt and Turkey were lines drawn "from Rafah to Suez, and from Suez to Akabah. A com-"promise was hinted at by Mûkhtar Pâshâ, by whose orders "it is not clear, of a frontier from Râs Muḥammad to Al-'Arîsh." According to Mûkhtar Pâshâ's contention, the Turks would have had the right to construct a strategic railway to Suez, and the effect of his compromise would have been to advance the Turkish frontier to Nakhl, and to turn the Gulf of 'Aḳabah into a *mare clausum* in the possession of Turkey, and into a standing menace to the security of the trade route to the East. On April 30th, the British Ambassador received instructions to inform the Ottoman Government that ten days would be given them to comply with the British demands, failing which the situation would become grave. A fortnight later the Sulṭân gave orders for the evacuation of Tâbah by Turkish troops, and accepted the demands of H.M.'s Government.

In modern times the antiquities of Sinai were discovered by Niebuhr in 1762, and he published an account of them in 1774. They were next examined by Seetzen in 1809; by Bontin in 1811; by Burckhardt in 1812 and 1813; by Rüppell

in 1817; by Ricci and Linant in 1820; by Bonomi, Lord Prudhoe, Major Felix and Burton between 1820 and 1828; by Laborde and Linant in 1828; by Robinson in 1838; by Lepsius in 1845; by Lottin de Laval in 1850; by Brugsch in 1866; by Holland in 1868; by Lord in 1869; by the members of the Ordnance Survey, including E. H. Palmer, between 1865 and 1869; and by many other travellers in the following years. Among recent travellers must be specially mentioned Monsieur G. Bénedite, who made two journeys to Sinai during the years 1888–1890. In this period he visited every part of the peninsula, and saw and copied and photographed every inscription of importance in the country, and as a result of his work he contributed 2,400 copies of texts, chiefly unpublished, to the *Corpus Inscriptionum Semiticarum.* M. Bénedite and M. Weill together left no archæological work that was worth doing in Sinai undone. In 1905 Mr. C. T. Currelly visited Sinai and arranged for the removal of some of the Egyptian monuments to the museum in Cairo; he was assisted by Mr. Frost in cutting out the inscriptions at Wâdî Maghârah, and he published an account of his work in Prof. Petrie's *Researches in Sinai*, London, 1906. In the same year Prof. Petrie, on behalf of the Egypt Exploration Fund, examined some of the sites in Sinai which had been described by Lepsius, Weill, and others.

History of Sinai.—In pre-dynastic times the Egyptians appear to have been perfectly aware that there were copper and turquoise mines in the Peninsula of Sinai, and there can be but little doubt that the kings of Lower Egypt had worked those in the **Wâdî Maghârah** before the union of the countries of the south and the north. In the dynastic period the oldest kings mentioned are **Smerkha,** (Ist dynasty) and **Tcheser,** a king of the **IIIrd dynasty**; their figures are found in the Wâdî Maghârah. Next we have mentions of Seneferu,* Khufu (Cheops), Saḥu-Rā, Men-kau-Ḥeru, Ṭetka-Rā, Pepi I, and Pepi II, all before the end of the VIth dynasty. Under the kings of the **XIIth dynasty, Ṣarâbîṭ al-Khâdim** was opened up, and here we have monuments of Åmen-em-ḥat III, Åmen-em-ḥat IV, etc. Between 1500 and 1400 B.C. Ḥatshepsut and Thothmes III opened the mines, which had been closed

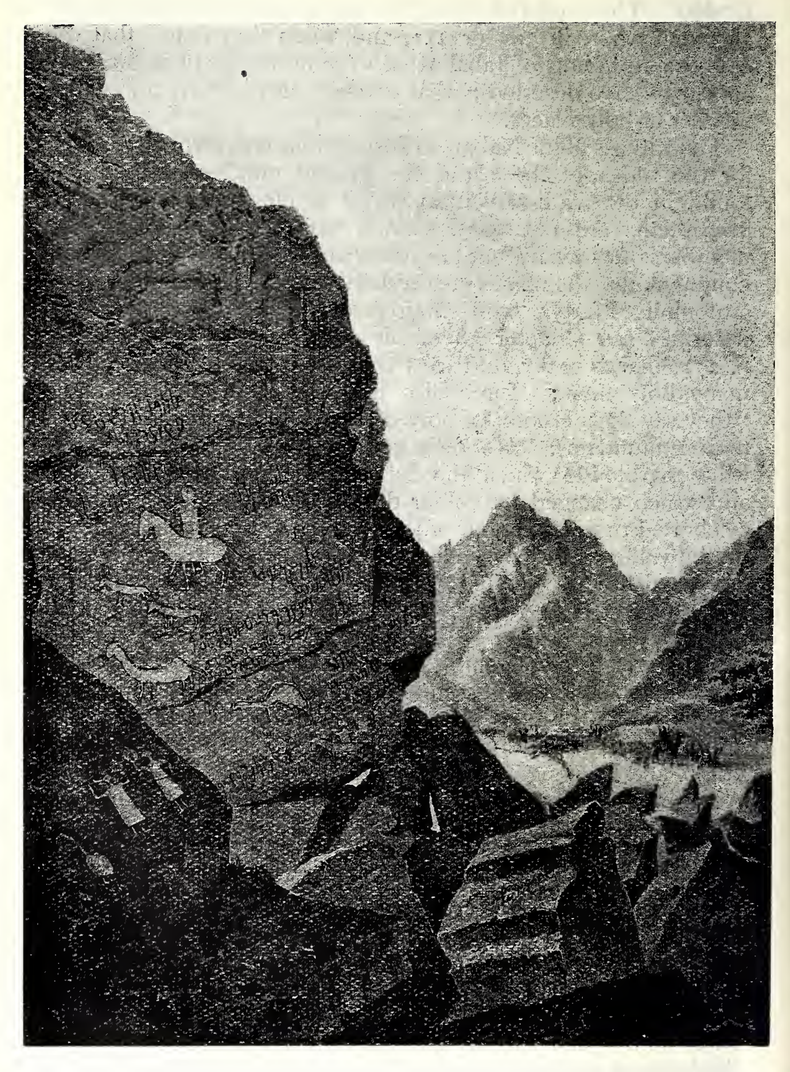
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for several hundreds of years, and several of their successors carried on works there, and made profits out of the copper and turquoises, which were found there and were highly prized. After the XXth dynasty no royal inscriptions are found at Sinai. It is difficult to account for this, but such is the fact. The absence of royal inscriptions perhaps suggests that the working of the copper mines of Sinai was no longer a Government monopoly, but even so the reason is wanting.

From about 1200 B.C. until the beginning of the Christian era nothing of importance is known about Sinai, but it seems tolerably certain that monks and anchorites settled there in the second and third centuries, after Sinai had been made a part of the Roman Empire. This naturally brings us to the consideration of the question where they settled, and why they took up their abode in certain districts. We should expect that they would gather near the places which tradition pointed out as being made holy by occurrences related in the Old Testament, and if this be so we may conclude that they gathered round the mountain on which the Law was given to Moses. But *which* mountain is the Mount Sinai of the Bible? An old tradition makes Jabal Sarbâl to be Mount Sinai, and even in early times this mountain possessed its "holy places." On the other hand, another tradition, but a later one, regarded Jabal Mûsâ as Sinai, and it too possessed its "holy places." Modern authorities differ on this point, for Lepsius, Ebers, and others pronounce Sarbâl to be Mount Sinai, and Robinson, Stanley, and Palmer declare the plain of Ar-Râḥah to have been the place where the Israelites encamped. On the other hand, Tischendorf, Laborde, Ritter, and Strauss consider Jabal Mûsâ to be Sinai. The oldest writers who discuss the matter, from Eusebius to Cosmas Indicopleustes, accept the older tradition in favour of Mount Sarbâl, and the numerous monasteries which were founded near it in the early centuries of the Christian era prove that their inhabitants favoured the view that Sarbâl was Sinai. Moreover, Ptolemy, in the second century, mentions the episcopal town of Pharân, which was situated in the Wâdî Firân. There is no early tradition in favour of Jabal Mûsâ, and it was only declared to be a holy place by Justinian (A.D. 527–565), who built a church there in honour of Mary the Virgin. By the side of his church Justinian built a fort to protect the monks against the Arab tribes of the district, and this assured the downfall of the monastic institutions of Sarbâl, where the monks were unde-

fended. They suffered much at the hands of the Saracens in 373, and again in 395 or 411, and, when they found that the church and monks of Jabal Mûsâ were protected by a fort, they appear to have deserted Sarbâl entirely, and to have adopted a new set of holy places.

The witness of the Nabatean Inscriptions is in favour of Sarbâl, for the oldest of these and the greater number of them are found in the Wâdî Mukattab, which is close by Sarbâl. The inscriptions are not mere scrawls which were made by the members of caravans, but are funereal texts cut on the rocks to commemorate the names of travellers who died on their journey. Antoninus Martyr, who flourished in the sixth century, describes (*see* Chapter 38 of his *Itinerary*, ed. Gildemeister, p. 27) Sinai as rocky, and says that it has about it the cells of many holy men; Horeb also has the same, and he adds, "they say that Horeb is holy ground" (et dicunt esse Horeb terram mundam). He then goes on to mention the snow-white marble idol which the Saracens set up in the mountain, and which changed its colour during the festivals which were celebrated there in honour of the moon. Antoninus next speaks of the valley between Sinai and Horeb, where the dew from heaven descends, which is called "manna," and he tells how it was collected and brought into the monastery, where small quantities were placed in bottles, and given away as a thing which brought a blessing on its possessor. To Antoninus himself some was given, and he tasted the drink which the monks made from it. He went up to Sinai from Horeb, and was met by an innumerable company of monks, carrying a cross and singing Psalms, and the monks and party of Antoninus prostrated themselves before them and they wept together. The monks then showed Antoninus the fountain where Moses saw the burning bush; this fountain was surrounded by walls, and was inside the monastery, which had three abbots, one knowing Latin, another Greek, and the third Egyptian. From there he went a distance of 3,000 paces, and arrived at the cave whereto Elijah fled from Jezebel, and 3,000 paces more brought him to the highest point of the mountain, where there was a small chapel about 6 feet square. In this place no one dared to remain, but at dawn the monks were in the habit of going up there and performing divine service. It was the custom for men to shave off their hair and beards at this place, and throw them away, and this Antoninus did. We may note that nowhere does Antoninus describe Sinai as a



Scene in the Wâdî Mukattab, showing Rocks with figures of Animals and Men and several "Sinaitic Inscriptions" cut upon them.

"holy place," and that he does not say he believed the giving of the Law to have taken place there; on the other hand, he does speak of Horeb as a "holy place," though why he does not say. It is impossible to arrive at any identification of Sinai which will satisfy all critics, and all that can be said finally on the matter is that Mount Sinai has been identified with:—(1) Sarbâl; (2) The peak called Horeb in Christian times; (3) Jabal Mûsâ; (4) Râs aṣ-Ṣafsâf.

1. *Suez* to the Monastery of St. Catherine, viâ Wâdî Maghârah.

The distance from Suez to the Monastery of St. Catherine by the shortest route is about 150 miles, and by the longest about 180 miles. Having crossed over to the east side of the peninsula and set out on his journey, the traveller's first halting place is **'Ayûn Mûsâ**, or the **Wells of Moses.**

About mile 21 the **Wâdî Ṣudûr** is reached. This Wâdî is memorable as the scene of the murder of Professor E. H. Palmer, Flag-Lieutenant Harold Charrington, and Captain W. J. Gill, R.E. Professor Palmer started on a secret mission on June 30th, 1882, to the Arabs of the desert and Sinai, the object of which was to buy their neutrality, and to prevent them from destroying or blocking any portion of the Suez Canal. Preliminary interviews with the shêkhs convinced him that their neutrality could be secured for the sum of £20,000, and the Admiral of the British Fleet placed this sum at his disposal. Taking £3,000 with him, he set out with Charrington and Gill, who intended to cut the telegraph wire between Cairo and Constantinople, meaning to go to Ḳal'at An-Naḥlah to make final arrangements for the payment of the money to the shêkhs. The guide of the party was Matar Abû Sofia, and as they were passing through the Wâdî Ṣudûr, on August 10th, he led them into an ambush, and the three Englishmen were captured by Arabs and bound. The following morning they were placed in a row facing a gully with a fall of 60 feet in front of them, and five Arabs behind them, three of whom had been ordered to shoot his man. Palmer fell first as the result of his murderer's fire, but the other two were missed, and began to scramble down the gully; on their way down, however, or at the bottom, they were despatched by the Arabs, and thus the three envoys were murdered. Their remains were brought to England, and buried in St. Paul's Cathedral on April 6th, 1883. A price had been

set upon Palmer's head by the rebels in Cairo some time before he was murdered, and it seems that he was shot, not for the sake of the money which he was carrying, but in obedience to 'Arabi's orders.

The **Wâdî Wardân** is next passed, and then the **Wâdî Ḥawârah,** a place which, on account of a bitter spring that rises there, has been identified as the Marah of the Bible (Exod. xv, 23). In the **Wâdî Gharandal,** about 50 miles from Suez, a certain amount of vegetation is found; this is due to the water, of a not very good quality, which exists here. Some have identified the valley with the Elim of the Bible (Exod. xv, 27). About five miles further on is the **Wâdî Uṣaṭ,** where there are springs, and in five miles more **Wâdî Ḳuwêsah** is reached. Near the seashore is **Jabal Ḥammâm Fir'âûn,** or the Mountain of Pharaoh's Bath. On the slope of this mountain is a sulphur spring, which is nearly boiling hot; its waters are much resorted to by the Arabs who suffer from rheumatism. No Arab will, however, dip in the waters until he has first offered an oil-cake to the "angry ghost" of Pharaoh, which is regarded as the presiding genius of the place. Professor Palmer relates the Arab legend in the following words:—

"When our Lord Moses had quarrelled with Pharaoh, and "determined to lead the children of Israel out of Egypt, he found "himself stopped by the salt sea, but at the command of God Most "High he raised his staff and smote upon the waters, whereupon "they parted upon the right hand and on the left, and the children "of Israel found a dry passage in the bottom of the deep. Then "Pharaoh and his soldiery essayed to follow, but when they had "come midway Moses again raised his staff and, smiting the waters, "said, 'Return, O sea, into thy former course,' and the waters "closed over the Egyptians, and the children of Israel saw the "corpses of their enemies floating on the waves. But Pharaoh "was a mighty man, and struggled with the billows; then, seeing "Moses standing on a rock above him, he waxed exceeding wroth, "and gave so fierce a gasp that the waters boiled up as they closed "over his drowning head. Since that time the angry ghost of the "king of Egypt has haunted the deep, and should any unfortunate "vessel come near the spot, he rises up and overwhelms it in the "waves, so that to the present day no ship can sail on Pharaoh's "Bath."

Having passed **Wâdî aṭ-Ṭâl** and **Wâdî Shabêkah,** the place is soon after reached where the valley joins the **Wâdî al-Ḥomr;** here the road starts which leads to Sinai *viâ* Ṣarâbîṭ al-Khâdim. Keeping to the road on the right which is near the sea, and journeying along **Wâdî Ṭayyibah,**

Al-Maḥâir is passed, and **Râs Abû Zanîmah** is reached; at this place is the tomb of a Muḥammadan saint, which is usually decorated with a miscellaneous assortment of gifts from the faithful. The Arab legend of the mare of Abû Zenâ is given in the *Ordnance Survey of the Peninsula of Sinai*, Part I, p. 67, and runs thus:—

"An Arab named Abû Zenâ was riding a mare that was with "foal, and, notwithstanding her condition, was urging her along "at a cruel speed. When she came to the spot which now bears "her name, he dug his spurs into her sides, whereupon she made a "tremendous bound, and immediately after foaled and fell down "dead. Abû Zenâ, in wonder at the immense length of the stride "which his unfortunate beast had taken, marked the distance with "stones, and related the incident to his friends. The matter was "soon noised abroad, and every Arab that came by would relate "the story, marking out the distance as he did so with a stone. "Admiration for the mare's performance soon grew with the pagan "Arabs of that time into a stronger feeling of veneration, and the "mare was worshipped as a deity, and offerings of corn were "brought to the spot. But when they forsook idolatry, and came "to look upon their previous idols as devils, they turned their late "idolatrous observance into ridicule, and an expression of aversion "from the demon supposed to haunt the spot; and instead of "bringing offerings of barley or wheat they would throw pebbles "on the heap, and kick a little sand on it with their feet, crying, "'Eat that, and get thee gone!' ('Agsa 'allig'). This custom is kept "up to the present day, and no Arab passes the spot without "kicking the sand and throwing a pebble on to the heaps of stones, "exclaiming, as he does so, ''Agsa 'allig.'"

In ancient days there was a harbour here, and it was at this point that the copper, malachite, and turquoise stones brought down from the mines were exported to Egypt. Tradition points to this place as the site of the Israelitish camp after the Hebrews had crossed the sea. The road now crosses the plain of **Al-Markhah,** through **Wâdî Hanak al-Laḳam,** and then through **Wâdî Shallâl**; here the route begins to enter mountainous country, and **Wâdî Budrah** is reached. From the Pass of **Naḳb al-Budrah** the **Wâdî Sidr** is reached, and in a very short time **Wâdî Maghârah** comes in sight.

The mines of Wâdî Maghârah were worked by the kings of Egypt from the Ist to the VIth dynasty, and the overseers who were in charge of the works cut reliefs of many of them, together with their names and titles, on the rocks. Work appears to have been suspended from the VIIth to the XIth dynasties inclusive, but the mines were reopened under the XIIth dynasty. The miners were probably protected by a garrison of Egyptians, who from time to time raided the inhabitants,

who are called Antiu and Mentiu in the inscriptions, and the district was held to be under the direction of the god Sept, and the goddess Hathor. The mines yielded the *māfket*, [hieroglyphs], stone, *i.e.*, turquoise, which was greatly prized in Egypt, and was much used for inlaying jewellery and other objects, and was made into amulets. These mines were abandoned at the end of the XIIth dynasty, probably because the Egyptian Government could not work them at a profit. The Egyptian inscriptions have been much injured by the Arabs, who blast away the stone in search of turquoises. The mines are well worth a visit, especially for those who wish to examine old Egyptian mining methods, the roof pillars, tunnelling, etc. Professor Palmer found on the various fissures and cuttings in the rock chisel marks, which indicate the vast amount of labour expended on them. The inscriptions are on the rocks on the western side of the valley, opposite the site of the old Fort and the ruins of Major Macdonald's house. This gentleman was an English officer who lived here for some years, and reopened the mines, and employed the Arabs to work; commercially his venture was a failure, and he subsequently died in Egypt a ruined man.

Passing out of Wâdî Maghârah, and journeying south through Wâdî Sidr, the interesting **Wâdî Mukattab,** "Valley of "Writings," is reached. Here are the famous Sinaitic inscriptions and rude drawings, which many, on the authority of Cosmas Indicopleustes, have declared to be the work of the Children of Israel. It is now known that these were the work of the Nabataeans, who were masters of Sinai during the early centuries of the Christian era; the Arabic, Greek, and Coptic *graffiti* belong to a still later date. Many of the symbols are Pagan and many Christian. The **Wâdî Firân** is next entered, with its wild and striking scenery; in this valley, not far from the Oasis, is the rock called **Ḥêṣi al-Khaṭṭâṭîn,** which Arab tradition says is the rock which Moses struck when he made water to flow forth (Exod. xvii, 6). It is surrounded by small heaps of pebbles, and tradition declares that these were thrown there by the Israelites after they had drunk their fill, in order to amuse themselves. Any Arab who has a sick friend throws a pebble in the name of Moses, and believes that he will be cured. The Valley of Firân has been identified by some with Rephidim (Exod. xvii, 1).

Towards the end of the valley is the **Oasis of Firân,** a beautiful spot, and close by are the ruins of the old town of Firân, upon the elevation called **Al-Maḥarret.** Firân is the old episcopal town of **Pharan,** which is mentioned by Stephen of Byzantium, Ptolemy the Geographer, and by Maḳrîzî about A.D. 1400; the precious stone found in this valley was called "Pharanitis." About A.D. 372 the Blemmyes crossed the Red Sea in ships, and went to Raithou and slew 43 monks, and Paul, their leader; when they returned to the coast they found that their ships had been burnt during their absence. On hearing this news the Saracens from Pharan, 600 in number, led by Obedien, came down and killed all the Blemmyes, who were afterwards buried with proper care. About A.D. 400 the Bishop of Pharan was Nathyras, who had formerly been a monk of Sinai, and a disciple of Silvanus, the leader of the monks of Sinai; about A.D. 450 the Bishop was one Macarius. The ruins consist of the foundations of a monastery and parts of the church walls; among the latter Professor Palmer found a relief with the figure of a seated man holding his arms aloft; he was disposed to regard it as a representation of Moses at the Battle of Rephidim. The hills near are honeycombed with monks' cells, and on their tops are the remains of their graves.

On the right side of Wâdî Firân is **Jabal aṭ-Ṭâḥûnah,** or Mountain of the Mill, which is remarkable for the number of tombs, cells, and chapels on it. About half-way up is a ruined church, above this are several small chapels, and on the summit is a church, built on a foundation of large stones; this church was turned into a mosque after the Christians left it, and a flight of steps leads to it from the valley. This mountain has been identified with Gibeah by some writers. From the top a splendid view of Jabal Sarbâl is obtained, and no one should fail to make the ascent and enjoy it.

Jabal Sarbâl stands in a ridge which is three miles long from end to end; it is about 6,700 feet high. When looked at from Wâdî 'Alayât it is seen to consist of five distinct peaks, the highest of which, **Al-Madawwah,** is 6,734 feet above sea level. The name Al-Maḍawwah means "light-house," and is so called because fires were lit there to warn the tribes of danger or invasion of hostile tribes. The name SARBÂL is said to mean "coat of mail," in allusion to the appearance of the mountain when water rushes over the smooth rocks upon its summit during a storm. Mr. Holland described the mountain

after a heavy winter rain as "covered with a sheet of ice that "glittered like a breastplate." Of the claims of Mount Sarbâl to be considered as Mount Sinai, mention has already been made. The ascent of the mountain requires a full day, and should not be attempted by any who have not experience in mountain climbing; the upper portion of the mountain especially is declared by experts to be difficult.

The whole district is full of remains of the greatest interest, and three or four days may well and profitably be devoted to its exploration.

Continuing the road to Sinai, before the end of Wâdî Firân is reached, note should be taken of **Jabal al-Munâyah,** *i.e.* the "Mountain of the Conference"; here tradition declares God held converse with Moses. On this mountain the Arabs still offer sacrifices to Moses. At **Al-Buwêb** the Wâdî Firân ends. From this point the least difficult road is by the **Wâdî ash-Shêkh,** where manna is found, but the more convenient road passes through Wâdî Salâf and Naḳb al-Ḥâwi. In the **Wâdî Salâf** are to be seen numbers of the small stone houses, like beehives, which the Arabs declare to have been built by the Israelites, who took shelter in them from the mosquitoes which infested the peninsula; they are called *nawâmîs* (sing. namîs). The Arabic word for mosquito is *namûs.* About six miles further on, at Wâdî 'Ajjâwî, the road joins that which leads to Mount Sinai from Ṭûr, the port on the Red Sea. At the end of Wadî Salâf is **Naḳb al-Ḥâwi,** *i.e.*, the "Cleft of the Wind." This is one of the grandest passes on earth, and forms a fitting gateway to the awful heights of Sinai. "It is a narrow and precipitous passage through lofty granite "mountains rising to the height of 1,500 feet, while large "masses of rock on either side seem ready to fall on the "adventurous traveller." Passing through **Wâdî ar-Raḥa** the mountains of Sinai are seen in full view; the **Wâdî ad-Dêr** is next entered, and in a short time the traveller arrives at the **Monastery of St. Catherine.** At the entrance to this Wâdî, which is also called Shu'aib, is **Jabal Hârûn,** where tradition says Aaron set up the golden calf (Exod. xxxii, 4); and since tradition connects this valley with Jethro, the **Well of Jethro** (Exod. ii, 15) is pointed out. Close by is the magnificent peak of **Jabal Mûsâ,** and to the west is **Jabal aṣ-Ṣafṣâfa,** or Ras aṣ-Ṣafsâf, from which the Law is said to have been given to the Israelites assembled in the plain of Ar-Raḥah.

2. Suez to the Monastery of St. Catherine, viâ Ṭûr.

The journey to Mount Sinai may be made partly by sea, and if it be decided to follow this route a large boat with a crew must be hired at Suez; the traveller having embarked with his baggage at Suez, sail is set for **Ṭûr,** or Ṭor, on the western side of the peninsula, some 120 miles down the Red Sea. An agreement must be made carefully with the owner or captain of the boat as to the amount of hire, etc., so that there may be no misunderstanding on this point during the journey; in cases where no definite agreement has been made captains have, when at sea, demanded exorbitant sums for the hire of their services and boat, and have refused to proceed until their victims have handed over the money. The start should be made in the afternoon, and the journey to Ṭûr occupies practically a day. At Ṭûr camels must be hired for the journey through the desert. There is no difficulty in obtaining them, but if the traveller can obtain introductions to the shêkh he should do so, for the animals placed at his disposal will then be better than usual. A few years ago Ṭûr was a wretched little hamlet, consisting of a few fishermen's huts, but in ancient days it must have been a seaport town of very considerable importance, and most of the sea-borne goods intended for the monks and recluses must have entered Sinai by this port. It is now the great quarantine station for pilgrims to Mecca, and soldiers are maintained here to enforce the rules and regulations of the Quarantine Board. The arrival of the pilgrims brings in its train "merchants" from Cairo, and then Ṭûr has somewhat the appearance of a desert market, but their wares are chiefly modern and are uninteresting. There is nothing of importance to see at Ṭûr. Close by is **Jabal Ḥammâm Mûsâ,** *i.e.*, the Mountain of the Bath of Moses, where are hot sulphur springs, which trickle down by various canals into the midst of a large palm grove belonging to the Monastery of St. Catherine. A number of chambers similar to those of a Turkish bath have been built over them, and these are much frequented by natives suffering from diseases incidental to residence in a very hot climate.

About 12 miles from Ṭûr is a sand-slope from the mountain called **Jabal Nâḳûs,** *i.e.*, the "Bell Mountain," because loud and mysterious noises are heard to proceed from it. (The *nâḳûs* is really a board which is beaten in monasteries to call

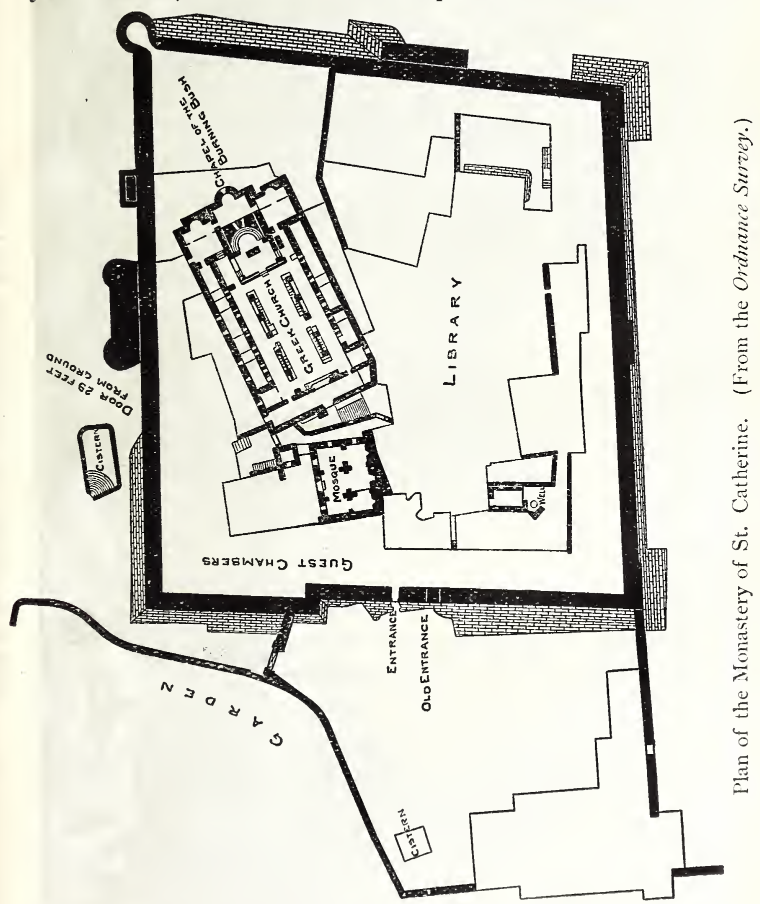
the monks to prayer, and not a bell.) This slope is 195 feet high, and 240 at the base; the sand is of a yellowish-brown colour, and lies at such an angle that the slightest cause sets it in motion. When any considerable quantity of sand rolls down, a deep, swelling, vibratory moan is heard, which gradually rises to a dull roar, loud enough when at its height to be almost startling; as the sand ceases to roll the sound dies away. Some think the sound is caused by the movement of the surface sand, others say it is due to the movement of the sand over hollow rocks, or from its falling into cavities, and the Arabs explain the sound in a characteristic legend which is given in the *Ordnance Survey*, p. 69, as follows :—

"A Bedawi who was encamped at Abu Suweirah on the sea "coast near Ṭor, as he walked along the shore found himself "unexpectedly before a small convent, situated in a pleasant garden "and inhabited by seven monks. They invited him to enter their "abode, and entertained him with a hospitable meal, enjoining him "at the same time not to inform a living soul of what he had seen "or heard. As they conducted him back towards his tents he took "the opportunity of dropping the stones of some dates that he was "eating, in order that he might be able again to recognise the path. "On regaining his encampment he, notwithstanding the promise "which he had made, revealed the secret of the monastery and "proposed an attack upon his entertainers. No one could be found "to believe his story, and when he offered to conduct them to the "spot, he found that the monks had become aware of his intentions, "and had carefully removed the date stones which were to have "served him as a clue to guide him to their dwelling. Arrived at "Jebel Nágús, however, he recognised the spot, but neither "convent, garden, nor monks were to be seen. They had mysteri- "ously disappeared beneath the ground, but from the heart of the "mountain could still be heard the sound of their *nagus*, or wooden "gong, calling the brethren to prayers. The Arab who had thus "broken his oath and violated the sacred claims of 'bread and salt' "was repudiated by the rest of his tribe as a liar and deceiver, and "perished miserably in solitude and want."

The desert journey to Mount Sinai from Ṭûr may be now briefly described. The plain of **Al-Ḳâ'a** is first crossed, and then the **Wâdî as-Slê** is entered; passing through Wâdî Ṭarfa, Wâdî Raḥabah, and Wâdî Sabâ'îyah, and thence by a pass, the Wâdî ad-Dêr, wherein the Monastery is situated, is entered. The journey may be made in two or three days, but it is uninteresting, and there is nothing of importance to be seen on the way. Another route, *viâ* **Wâdî Ḥabrân**, may be taken; this joins the road to Sinai, *viâ* Maghârah at Naḳb al-'Ajjâwî, and before this point is reached numerous inscriptions are seen on the rocks.

3. The Monastery of St. Catherine and the Holy Places of Sinai.

The **Monastery of St. Catherine** stands on the left bank of the narrow valley which lies between Jabal Mûsâ and Jabal ad-Dêr, and it encloses the spot where Moses saw the



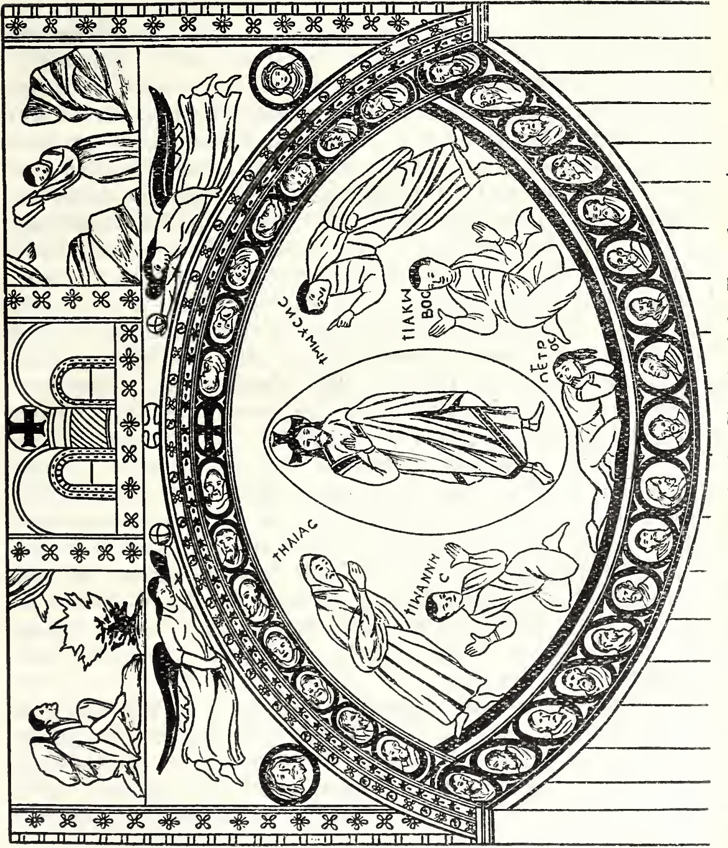
Plan of the Monastery of St. Catherine. (From the *Ordnance Survey.*)

Burning Bush, and the chapel and tower built by Helena. The old walls are built of well-dressed blocks of granite, and still form a solid foundation for the modern walls built upon them. The east wall was almost rebuilt in 1799–1800 by



View of the Monastery of St. Catherine on Jabal Mûsâ.
(From *Voyage de L'Arabie Pétrée*, by Laborde and Linant, Paris, 1830.)

General Kléber, and this fact is commemorated by a tablet with an inscription in modern Greek. The old entrance is on the north side, but its door, 7 feet wide, has been walled up; the present entrance is a little to the left of the old one. Water is obtained from two wells within the walls, and outside, on the east, is a reservoir. The monastery was founded by Justinian



Sketch of the Mosaic in the Church of the Transfiguration.

(A.D. 527–554) in the year 530, and its church certainly dates from the reign of this Emperor. A portion of it is probably of earlier date, for the tower of the south-west corner of the church is said to have been a separate building, with its own entrance. This building may have been Helena's tower, but

some regard it as the fort which Justinian built there before the church.

The **Church of the Transfiguration** is divided into a nave and two aisles by two rows of columns, and at the eastern end of the nave is a large apse, on the vault of which is the well-known mosaic. In the centre of the mosaic is Christ; on His right is Elijah, on His left Moses, at His feet Peter, and James and John kneel one on each side. Round the whole are mosaic portraits of saints and prophets, each with his name in Greek below his effigy. Above the apse are scenes of Moses at the Burning Bush, and Moses receiving the Law on Mount Sinai; below are two angels, and two medallions with portraits which some declare to be those of Justinian and Theodora, and others of Moses and St. Catherine. The Bishop's throne is modern, but the bronze lions which are near the screen are ancient. On the north are chapels dedicated to Antipas, Constantine and Helena, and Marina; on the south to Cosmas, Damian, Pantalewôn, Simon the Pillar-Saint, and Joachim and St. Anne. The granite columns are heavy in appearance; and each has a metal cross let into it 2 feet above its base. Close to the altar are the relics of **St. Catherine,** whom one legend declares to have been the daughter of Moses! When Professor Palmer visited the monastery he thought that in spite of its massive walls it was ill adapted to resist a determined attack, for it was commanded from both sides of the valley; he entered by a small wicket gate of massive iron, and not by the wicket, covered by a pent-house, 30 feet from the ground, through which travellers were formerly drawn up into the building. The apartments for travellers he describes as clean, and says they were furnished with a table in the centre and cushions were on the *dîwâns* all round. They are now provided with bedsteads.

The **Chapel of the Burning Bush** is at the east end of the church, and Palmer tells us that the visitor before entering it is requested to take his shoes from off his feet, as the place whereon he is standing is holy ground. The altar has on it a silver plate which is intended to indicate that it stands on the very spot where the Bush stood. Over the altar is a little window through which it is said the sunlight only penetrates one day in the year, and then a solitary ray darts through a cleft in the mountain above and falls upon the chapel floor. The cleft in the mountain is marked by a wooden cross, and the Arabs call it therefore

Jabal aṣ-Ṣalîb, or Mount of the Cross. A legend says that the original Book of Moses, which was written on stone, was brought down by the monks from Sinai and built into the wall of this chapel, and that this window was left where it is so that the people might be able to look on the Book from time to time. The people are said to believe that blessings and curses can be brought upon the country by opening the window in certain ways. Professor Palmer records that 'Abbâs Pâshâ always prayed in this chapel instead of in the mosque!

The **Mosque** has a mean and shabby appearance and is said to have been built by the monks, who were alarmed on hearing that the Arabs were bent on destroying their monastery, and that an officer had been told to carry out this act of sacrilege. When the Arab arrived he found the mosque standing, and the monks declared that they possessed a charter which had been given to them by Muḥammad the Prophet himself, and bore the impress of his hand, for as is well known, he could neither read nor write. As a matter of fact the mosque is not older than the fifteenth century.

The **Library** contains a very considerable number of manuscripts in Greek, Arabic, Syriac, Ethiopic, Persian, Armenian, etc., and the more valuable MSS. have now been removed to a room near the Archbishop's house, and into his own apartments. The famous "Codex Aureus," *i.e.*, the **Evangeliarium Theodosianum,** which is erroneously said to have been given to the monastery by the Emperor Theodosius in the eighth century, was written in the tenth or eleventh century; the leaves are of fine vellum, with two columns to a page, and the writing is in gold. At the beginning, painted in gold, are portraits of Christ, Mary, Peter, and the four Evangelists (Cat. No. 204). Another interesting MS. is the **Psalter,** which was once thought to have been written by Cassia, a woman, in the ninth century; it only consists of six leaves, with two columns to the page. The writing is extremely minute, and was produced by a scribe in the fourteenth or fifteenth century (Cat. No. 108). It will be remembered that the famous **Codex Sinaiticus** was obtained from this Library. When Tischendorf was here in 1844 he picked 43 leaves of the Septuagint out from a basket of papers destined to light the oven of the monastery, and these the monks gave him. In 1853 he returned, and tried to obtain the rest, but failed; in 1859 he went back again, and on February 4th of that year he was able to bring the MS. away from Cairo,

where it had been sent for his use, and it was taken to St. Petersburg. The Emperor Alexander II purchased the MS. from the monks for about £320. The Codex Sinaiticus dates from the second half of the fourth century; it contains 346½ leaves of vellum, which measure 13½ inches by 14⅞ inches. The Greek MSS. have been catalogued by V. Gardthausen (*Catalogus Codd. Græcorum Sinaiticorum*, Oxford, 1886, 8vo); the Syriac MSS. by A. S. Lewis (*Catalogue of the Syriac MSS. in the Convent of St. Catherine on Mount Sinai*, Cambridge, 1894); and the Arabic by M. D. Gibson (Cambridge, 1894).

In the garden is the **Crypt** where the monks are buried after death.

"It is a curious and ghastly sight. The defunct bishops are "brought here and stowed away in what I at first took for cigar "boxes; and a few hermits of unusual sanctity are hung up in "bags, like hams, against the wall. There are two compartments "in this mansion of the dead—one for the priests, the other for the "lay brethren; and seated against the low, iron door which connects "the two is a dried and crouching figure, the mortal remains of a "certain Saint Stephanos, who was a porter at the convent some "300 years ago. He sits there still, in hideous mockery of his "former office; and, as if to make his appearance still more ghastly, "some Russian pilgrims have decked him out in a silk shirt and "gaudy skull-cap. In one of the boxes are the remains of two "hermits, sons of an Indian king, the legend says, who lived and "died upon the mountains, in adjoining cells. Their skeletons are "still connected by the chain which bound them together in life, and "which was so contrived that when one lay down to rest his "neighbour was dragged up to pray, so that one of them was ever "watchful at his post."

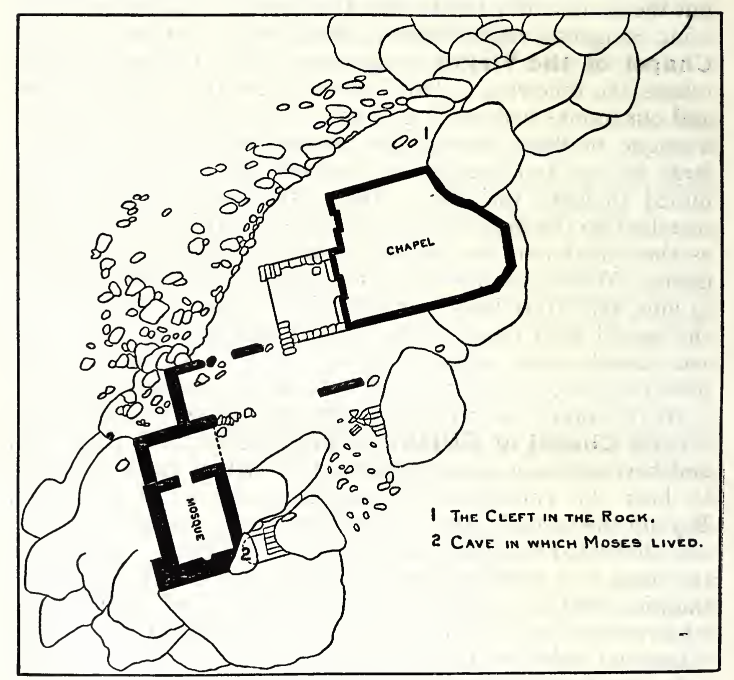
The Arab servants of the monastery are descended from the Wallachian and Egyptian slaves whom Justinian placed there to guard the monks, who at that time regarded the church as sacred to Mary the Virgin, and not St. Catherine; these servants are called JABALÎYAH (*i.e.*, "mountaineers"), and are to all intents and purposes the serfs or vassals of the monks. In the eighth or ninth century the monks disinterred a body of a woman which they declared to be that of St. Catherine; monks and serfs alike transferred their allegiance to the victim of the persecution of Maximinus, and the monastery has apparently been called ever since by the name of the virgin Catherine, whose body was broken on the wheel. She is commemorated on November 25th in the Greek and Latin calendars, and the festival of the finding of her body is celebrated on May 13th. The monks believe that vast treasures are hidden in a chamber below the building, the door of which is guarded by a

mysterious power which would kill any intruder; they believe, too, that the cross is their safeguard, and wear it as an amulet, and encourage the natives to do the same.

For travellers who are fond of climbing mountains, ascents of **Jabal Mûsâ** and **Râs aṣ-Ṣafṣâf** may be recommended. Of the five routes possible the one which ascends the pilgrims' steps may be chosen. The first place to note is the **Well of Jethro,** whereat Moses watered the flocks of his father-in-law, but the monks only regard it as the spring at which the cobbler saint, Sangarius, drank when he lived here. Further up is the **Chapel of the Virgin,** concerning which Professor Palmer relates the following:—Once upon a time the supplies failed, and our monks had nothing to eat. In addition to the famine, a plague of fleas infested the monastery, and these were so large in size and so great in numbers that the monks determined to leave the place. Before they went, however, they marched up the mountain to pay a farewell visit to the top, and as they filed out the steward remained behind to lock the doors. Whilst he was there the Virgin and Child appeared to him, and Mary bade him tell his companions to return, as she would help them. The monks did so, and they found 100 camels laden with provisions, and not a flea was left; from that time no flea has ever been seen in the monastery.

At the top of the ravine is a splendid cypress tree, and near it is the **Chapel of Elijah.** A little higher up is a gateway, and beyond it is a second gateway; at each of these a friar sat to hear the confessions of pilgrims, and to shrive them. Beyond the second gate is a building containing two chapels, one dedicated to Elijah, and the other to Elisha. Further up the steps is a small plateau, on which is a camel's footprint; tradition says the camel is that of Muḥammad the Prophet, who visited Sinai. "The view from the summit [of Jabal Mûsâ] "does not embrace so comprehensive a prospect of the peninsula "as that from the more commanding peaks of Katarîna, or "Serbâl; but the wild desolation of those majestic crags, "solitary ravines, and winding valleys, added to the solemn "and sacred associations of the scene, cannot fail to impress "the beholder with wonder and awe." (Palmer, *Desert of the Exodus*, p. 109.) The summit of Jabal Mûsâ is about 7,400 feet above sea-level, and is about 2,000 feet above the monastery. It is occupied by a **chapel** and a **mosque,** both built of granite, and outside the former, at the north-east corner, is a rock containing a grotto, sufficiently large to admit of a

person creeping into it; the upper side is indented with a mark as of a man's hand and head. Here it is said Moses received the Law and into this, the Arabs say, he crept when God said unto him, "Behold, there is a place by me, and thou shalt "stand upon a rock: and it shall come to pass, while my glory "passeth by, that I will put thee in a clift of the rock, and will "cover thee with my hand while I pass by: and I will take "away mine hand, and thou shalt see my back parts: but my



The Cave of Moses and the "Clift in the Rock."

"face shall not be seen" (Exodus xxxiii, 21–23). The mosque is a square building, and is partially ruined; only the *mihrâb*, or niche, indicating the direction of Mecca, remains. Here Moses is said to have dwelt for the 40 days of his sojourn on the Mount. Once a year the Arabs sacrifice a sheep or a goat on the top of the mountain to Moses, and the doorway of the mosque is stained with the blood of the victims. When the year has been a fruitful one a camel is sacrificed to Aaron, at

the hill in the valley which bears his name. Jabal Mûsâ is not a single mountain, but a mountain block two miles long and one mile wide, and at the other end of the block is **Mount Ṣafṣâfa,** *i.e.*, Willow Mountain, which is about 6,600 feet high. Between Mûsâ and Ṣafṣâf are a narrow ravine and a plain, at the end of which is a chapel dedicated to the **Holy Belt of the Virgin Mary,** and near it is the willow tree which gives the name to the mountain; from this tree Moses cut his rod.

At the north-east corner of the mountain is the **Sikkat Shu'aib,** or Jethro's road, and a path through it leads to the **Hill of the Golden Calf.** Following the road of the Russian pilgrims the traveller descends into the **Wâdî Laja;** Laja is said to have been Jethro's daughter. In this valley is the **Dêr al-'Arba'în,** or Monastery of the Forty [Martyrs], who were slain by the Saracens; round it is a fine garden with a grove of olive trees. In the middle of the garden is the **Chapel of St. Onuphrius.** At the mouth of the valley is the **Chapel of the Twelve Apostles,** and a little further on is shown the spot where the earth swallowed up Korah, Dathan, and Abiram and their company (Numb. xvi, 32). In this valley too is the **Stone of Moses,** or the **Rock of Horeb,** from which Moses obtained water by striking it with his rod. It is made of granite, and is several feet high, and is said to have followed the Israelites about as long as they were likely to need water, and then to have returned to its place in this desert. Certain fissures in it have been declared to be 12 mouths, each of which supplied water for one tribe. It need hardly be pointed out that most of these legends are due to the intense love of realism which is inherent in the Arabs and other Oriental peoples.

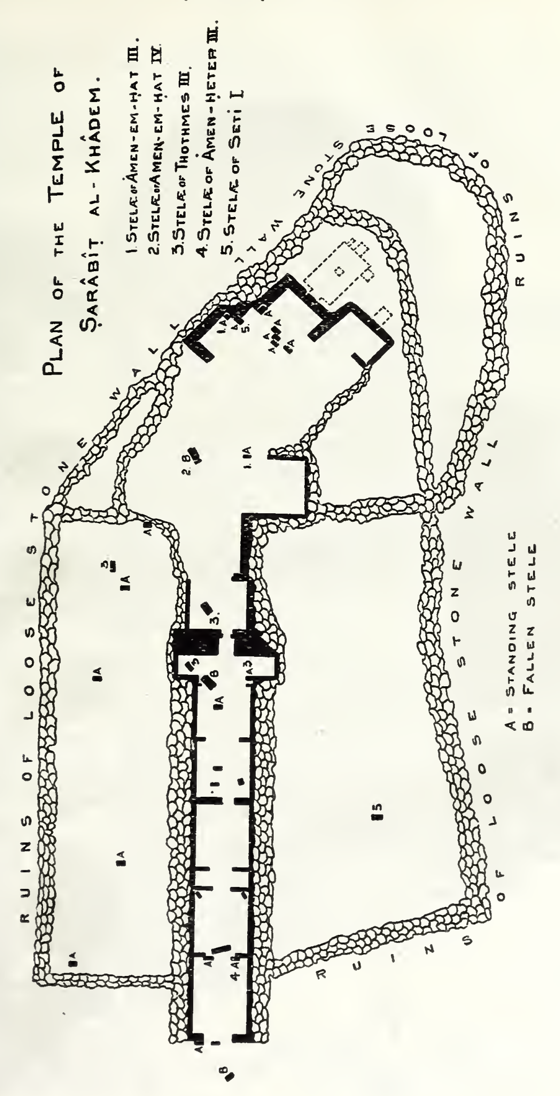
Jabal Katarîna, or **Jabal Kâtarîn,** the highest peak but one—Jabal Zabîr—in the peninsula, is a mountain which many will wish to climb, but the ascent is difficult; the interest in it is purely legendary. It is said that the angels carried St. Catherine's body from Alexandria, over the Red Sea and desert, and placed it on this mountain-top. The body was found by the monks, who set out to bring it to their monastery, and they were fainting from heat and thirst; at this moment a partridge flew out from a well, and thus showed them where water was, and from that time the well has been called **Mâyan ash-Shunnâr** or **Bîr ash-Shunnâr.** The road starts in the Wâdî Laja, and passes through a ravine containing many Sinaitic inscriptions, and, having passed the Partridge's Well, Mount Katarîna is reached. This mountain has three peaks,

Jabal Katarîna, Jabal Zabîr, and Jabal Rumêl; the second is the highest, 8,536 feet above sea level, and consists of one huge block of porphyry. To the north-east is Jabal Mûsâ; on the right are Jabal ad-Dêr and Râs aṣ-Ṣafṣâf, beyond which is Naḳb al-Ḥâwi. Westward are Jabal al-Banât, Al-Jôza, and Sarbâl. From this spot may be seen Jabal at-Tînîyah, with a white edifice on its highest point. This is the half-finished palace of 'Abbâs Pâshâ, who was ordered here for the benefit of his health. He lived with the monks of St. Catherine whilst his palace was being built, but before it was finished he changed his mind, and decided to live in the great monastery. He began to build the Pâshâ's Road, but the Arabs say that one day as he was going along it Moses met him, and shook him, and frightened him so much that he cursed Sinai and everything in it, and departed to Egypt, where a few weeks later he was murdered.

4. Mount Sinai to Suez viâ Wâdî ash-Shêkh and Ṣarbûṭ al-Khâdim, or Ṣarâbîṭ al-Khâdim.

Taking the road towards the north, the traveller makes his way along the Wâdî ad-Dêr, and after a few miles arrives at the tomb of **Shêkh Ṣâliḥ,** an early Muḥammadan saint, and "companion of the Prophet"; he must have lived, therefore, early in the seventh century. The tomb belongs to the Ṭâwarah Arabs, and is visited by them alone; it is a small, square, white-washed building with a dome. The saint is buried in the ground, and an empty wooden coffin stands above the grave; round about are hung the gifts of the faithful. The Shêkh was a good man, and worked miracles, and his tomb is the Mecca of Sinai. Once a year, in May, the Arabs sacrifice sheep and camels at the tomb, and sprinkle their blood on its walls; the people dance and run races, and funeral games of various kinds are celebrated.

Continuing the route, the pass of Al-Waṭîyah is traversed, and soon after the **Wâdî ash-Shêkh** is entered: crossing numerous valleys, the route proceeds *viâ* Wâdî Ṣulêf, Wâdî Barâḥ, Wâdî Labwah, and **Wâdî Barak,** which is long and broad, and is enclosed by steep gneiss rocks. At the entrance of this valley is a group of the "mosquito huts" already mentioned, and soon after are seen the ruins of the fortifications which the Arabs raised against Muḥammad 'Ali. The **Wâdî Sîk** is next entered, and in a short time **Dabêbat Shêkh Aḥmad** is reached; the tomb of the Shêkh is seen by the side of the


PLAN OF THE TEMPLE OF
ṢARÂBÎṬ AL-KHÂDEM.
1. STELÆ OF ÅMEN-EM-ḤAT III.
2. STELÆ OF ÅMEN-EM-ḤAT IV.
3. STELÆ OF THOTHMES III.
4. STELÆ OF ÅMEN-ḤETEP III.
5. STELÆ OF SETI I
RUINS OF LOOSE STONE WALL
RUINS OF LOOSE STONE WALL
RUINS OF LOOSE STONE WALL
A = STANDING STELE
B = FALLEN STELE



Stele set up at Ṣarâbîṭ al-Khâdim by an official of Âmen-ḥetep III, 1450 B.C.
The King is seen making offerings to Hathor, the goddess of the district.
(From the *Ordnance Survey*, Part III, Pl. 14.)

road, and in the neighbourhood are several other tombs. Traversing **Wâdî Khamîlah,** and descending into **Wâdî Ṣûwik** by a winding path, the traveller soon arrives at Wâdî Marattamah, near which is the famous **Ṣarâbîṭ al-Khâdim.**

To reach Ṣarâbîṭ al-Khâdim a climb of about 700 feet up very difficult road must be made. "A scramble over a rough slide "of loose sandstone at the upper end of the valley, a "treacherous sloping ledge of rock overhanging an awkward "precipice, and a steep ravine which brings into play all one's "gymnastic capabilities, leads to an extensive plateau broken "up by many deep ravines and rising knolls." On one of the small peaks is a heap of ruins of walls made of sandstone, and round about are broken columns and sandstone stelæ, some still *in situ*, but the greater number have fallen down; all these are enclosed by the ruins of an outer wall. In the reign of Åmen-ḥetep III a small rock-hewn sanctuary was made here, and furnished with an ante-chamber, and Thothmes III enlarged the building on the west, and added a small pylon, with an outer court. Within the walls of these numerous stelæ, recording the lives and deeds of Egyptian officials, were set up, and from time to time additions to the main building were made by later kings. The temple was dedicated to Hathor, the lady of Māfkat, , *i.e.*, the "land of "the turquoise," who was also the presiding deity of Maghârah; in it were niches, intended to hold statues of the higher mining officials and military officers, but these were all found to be empty. The form under which this goddess was worshipped was that of a cow, and the "molten calf" which Aaron made (Exodus xxxii, 4) for the Israelites to worship during the absence of Moses was, no doubt, "fashioned with a graving "tool" into a resemblance of Hathor. The Israelites, in fact, influenced by the prevailing local worship of Hathor, forced Aaron to fall in with the custom of the natives of Sinai, and gave him their gold ornaments to make the "molten calf." The walls were ornamented with painted reliefs, and traces of the inscriptions which described them, and recorded the titles of the king and the names of his gods, still remain. The outer wall encloses a space about 175 feet long and 70 feet broad, and there is reason for believing that a sanctuary stood here for more than 1,300 years, *i.e.*, from the XIIth to the XXth dynasty, during which period the mines in the neighbourhood were worked by the Pharaohs with more or less regularity.

The mines were situated in the **Wâdî Naṣb**, and between them and the temple the valley was occupied by the miners and by the soldiers who guarded them. To the east and west of the temple are mounds, one of which is 500 feet long and 200 feet broad, covered with layers of slag which vary in thickness from 12 feet at the base to 4 feet at the tops; this slag is not natural, and authorities are agreed in thinking that it represents the remains of the smelting operations which were carried on near the temple. Lepsius thought that the place was chosen on account of the keen draught of wind which is always blowing there, and which would form an excellent blast for the smelting fires. As large quantities of fuel would be required for smelting the copper ore, we may assume that the neighbourhood was well wooded, and that the country enjoyed a larger rainfall than at present. About the meaning of the name "Ṣarbûṭ (plur. Ṣarâbîṭ) "al-Khâdim" there is a difference of opinion. "Ṣarbûṭ" means "hill" no doubt, and "Khâdim," in Arabic, خادم, means "servant," and so the name of the place has been translated "Hill of the servant." Some colour is given to this view by the statements of the Arabs, who affirm that the hill obtains its name from the black statue of an official, or king, which formerly stood there and was carried off by the French during their occupation of Egypt. On the other hand, the word "Khâdim" may be the equivalent of the old Egyptian "khetem" [hieroglyphs], a "fortress," and if this be so "Ṣarbût" may also be a form of one or more Egyptian words.

Leaving the mines the route is resumed in the Wâdî Sûwik, and eventually **Wâdî al-Ḥomr** is reached; this leads into **Wâdî Shabêkah,** and in due course the traveller arrives at Suez. In the brief descriptions of the places, etc., passed on the roads to and from Sinai, no attempt has been made either to trace the course of the Israelites in their journey to Sinai or to identify their halting places. A mere statement of the opinions of one authority or another would be misleading in most cases, and the space available here is too limited to admit the introduction of general arguments. On one point, however, it is important to state a few facts, viz., the **Sinaitic Inscriptions,** for the most extraordinary statements have been made about them. According to the old traveller Cosmas Indicopleustes (A.D. 536) they were written by the Hebrews themselves, in

the time of Moses, at the various stations in the desert at which they halted, and he asserted that the letters were identical with those with which the Tables of the Law were written. In 1636 Athanasius Kircher wrote great nonsense about them, and many other travellers, etc., described their contents entirely after their own imagination. Copies were made by Egmont van der Nyenburg (1721), Pococke (1738), who transcribed 86; Niebuhr (1766), Wortley Montagu (1766), Coutelle and Rozière (1799), Seetzen (1807), Burckhardt (1812), Rüppell (1817), Grey (1820), Henniker (1820), Laborde (1828), Lord Prudhoe and Major Felix (1835), Laval (1850), Frazer (1855), etc. In 1866 Professor E. H. Palmer copied about 300 of the Sinaitic inscriptions, and in 1888 and 1889 M. G. Bénedite, under the auspices of the French Academy, copied about 2,400 inscriptions. This splendid material has been published in *Corpus Inscriptionum Semiticarum*, Pars II, Tom. 1, fasc. III, Paris, 1902, and it is now possible to discuss the inscriptions as a whole. The first to attempt the decipherment of the Sinaitic inscriptions was E. F. F. Beer in 1840, who declared them to be the work of the Nabateans; he was followed by Tuch in 1848, Lenormant in 1859, Levy in 1860, and J. Euting in 1891, who published and translated about 600 inscriptions. The labours of these scholars have proved that the translations made by C. Forster and Samuel Sharpe in 1875 were the result of guesses, and that they were utter nonsense. The **Sinaitic inscriptions are funereal** in character, whether they be found in Petra or Sinai; they are quite short, and merely record the names of deceased persons, with exclamations, thus:—"Peace, 'Abdaḥaratat the "Eparch, and Garmu his servant" (No. 790); "May 'Amru "the son of Ashbatu be eternally remembered for good" (No. 788); "Peace, 'Ammayu, the son of Ḥarîshu, priest of "'Uzzia" (No. 611). The inscriptions are cut in the rocks in letters of different sizes, some being only 1 inch in height, and others 13 inches; they have all the appearance of having been cut in a hurry, for the forms of the letters are often very careless. In fact, most of them commemorate persons who died when travelling, and were buried by their friends in a hurry. The language in which they are written is Nabatean, *i.e.*, Aramean, with an admixture of Arabic words; the writers were Pagans, and they worshipped various Semitic gods, one being Dûshrâ (?), but among 2,000 texts scarcely 20 mention a god's name. Though the inscriptions are so numerous, the

men who wrote them were few, in fact, barely four generations; and it is now believed that all the texts were cut in the rocks in the second and third centuries of our era by the Nabateans, who were masters of the Peninsula of Sinai at that time, not in fulfilment of a pious desire, and not as an act of worship. The following are three of the Sinaitic inscriptions, with transcriptions into Hebrew letters, and an alphabet :—

INSCRIPTION FOR WA'ILU AND OTHERS.

דכירן וא
לו וחרי
שו ועיי
דו בני אבא
ושו בטב

"May be remembered Wa'ilu and Ḥarîsu, and 'Oyaidu,
"the sons of Abu-Aushu for good!"

(No. 812.)

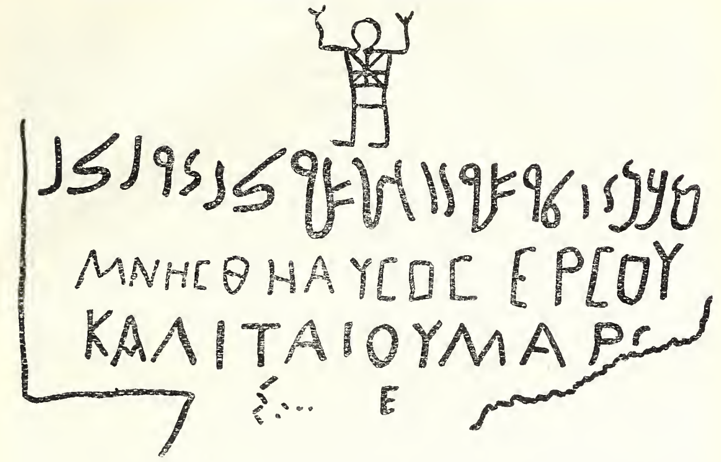
INSCRIPTION FOR FARIDU.

שלם פרדו בר ואלו בר
שעדת די מתקרי
בר חרי כלבו

"Peace! Faridu, the son of Wa'ilu, the son of Sa'idat,
"who is called the free man Kalbu."

(No. 1296*a*.)

Greek and Nabatean Inscription for Aushu.



מדכיר אושו בר חרשו טריו בטב

"May Aushu, the son of Ḥirshu, the son of Ṭurîyu, be remembered for good."

ΜΝΗCΘΗ ΑΥCΟC ΕΡCΟΥ
ΚΑΛΙΤΑΙ ΟΥΜΑΡΟΥ
Ε[Ν ΑΓΑΘΟΙC] (No. 1044.)

Nabatean Alphabet.

Hebrew		Hebrew		Hebrew	
א	'	ח	KH	ע	'
ב	B	ט	Ṭ	פ	P
ג	G	י	Y	צ	Ṣ
ד	D	כ	K	ק	Ḳ
ה	H	ל	L	ר	R
ו	W	מ	M	ש	S
ז	Z	נ	N	ת	T
		ס	S		

5. The Exodus.

The **Exodus** of the Israelites from Egypt is a subject of general interest, and, with special reference to the account of the holy places of Sinai, it may be well to refer briefly to the principal views on the subject. The facts of Egyptian history show that a vast number of people, probably Semites, were expelled from the Delta about 1700 B.C., and the process of expulsion went on under the reigns of the first three or four kings of the XVIIIth dynasty; this being so, there must have been on several occasions an exodus of Semites, or at least of Canaanites, from Egypt. Traditions of these expulsions must have lingered among the Canaanitish tribes of Palestine, and when the Hebrews had occupied the country, their annalists incorporated them in their accounts of the emigration of their own ancestors from Egypt. Even Egyptian writers confused the traditions of two distinct events, *i.e.*, the Expulsion of the Hyksos, for which they had historical documents as proof, and the Exodus of the Israelites, which was not mentioned on their monuments, and of which they, if we may trust the narrative of Josephus, possessed a confused legend. It is therefore very probable that similarly in the Hebrew narrative of the Exodus we have a faint reminiscence of the expulsion of the Hyksos, as well as a strange tradition of the events which accompanied their own Emigration from the land of Goshen.

The view that the Exodus took place under Åmen-ḥetep III, as Josephus suggested, is untenable, but it is very probable that the Israelitish emigration really took place under Menephthah, whose name was easily confused with Åmen-ḥetep. Many Egyptologists hold this view, and believe that Menephthah is the Pharaoh of the Exodus, just as Rameses II is the Pharaoh of the oppression of the Israelites, and that the Exodus took place about 1270 B.C., some 400 years after the expulsion of the Hyksos. In Exodus i, 11–14, we read that the Egyptians made the lives of the Israelites "bitter with "hard bondage, in mortar, and in brick, and in all manner of "service in the field: all their service, wherein they made "them serve, was with rigour. Therefore they did set over "them taskmasters to afflict them with their burdens. And "they built for Pharaoh* treasure cities, Pithom and Raamses."

* A title meaning "Great House," in Egyptian *Per-ā*, [hieroglyph]; compare the Sulṭân's title, "Sublime Porte." The idea in each case is that the monarch is the house in which all men live, or the "asylum of the universe."

We touch firm ground in the statement that the Israelites built "for Pharaoh treasure cities, Pithom and Raamses," for the names of these cities are well known from the hieroglyphic inscriptions, and their sites have been satisfactorily identified by Professor Naville. **Pithom** is the city which the Egyptians called Pa-Åtem, *i.e.*, the "House of the god Åtem," its site being marked by the ruins called "Tall al-Maskhûṭah," at the eastern end of the Wâdî Ṭûmîlât, and **Raamses** is none other than Tanis, the Zoan of the Bible, and the Ṣân of Arabic writers. When Rameses II came to the throne he continued at Tanis the great work which his father had begun; he repaired or rebuilt parts of the walls and temples, he strengthened its defences, and he either founded or refounded a temple in honour of the gods Åmen, Ptaḥ, Harmachis, and Sutekh. He usurped large numbers of statues and monuments which had been made by the kings his predecessors, and during his lifetime at least the whole city was spoken of as "Pa-Rāmessu," *i.e.*, "the house of Rameses." Rameses II was the builder king *par excellence*, and he scrupled not to compel the alien peoples settled in the Delta to join the *corvée* of the day.

In Exodus v, 6–14, we read that "Pharaoh commanded the "taskmasters of the people and their officers, saying, Ye shall "no more give the people straw to make brick, as heretofore: "let them go and gather straw for themselves. And the tale "of the bricks, which they did make heretofore, ye shall lay "upon them; ye shall not diminish ought thereof: for they "be idle; therefore they cry, saying, Let us go and sacrifice "to our God. Let there more work be laid upon the men, "that they may labour therein; and let them not regard vain "words. . . . So the people were scattered abroad throughout "all the land of Egypt to gather stubble instead of straw. "And the taskmasters hasted them, saying, Fulfil your works, "your daily tasks, as when there was straw. And the officers "of the children of Israel, which Pharaoh's taskmasters had set "over them, were beaten, and demanded, Wherefore have ye "not fulfilled your task in making brick both yesterday and "to-day, as heretofore?" When we remember that Rameses II built a wall from Memphis to Pelusium to keep out of Egypt the hordes of nomad Semites who infested the Eastern Desert, and that he dug the great canal which joined the Nile and the Red Sea, to say nothing of the great building operations which he carried out in stone, there seems to be no reason to

doubt that the passage quoted above accurately describes the miserable conditions of the Israelites in the Delta under Rameses the Great. On the other hand, the narrative in Exodus gives us to understand that the oppression of the Israelites took place after Joseph's death, and because another Pharaoh, who knew not Joseph, sat on the throne of Egypt. But the name of Joseph's wife, Asenath, and that of her father, Potipherah, and Joseph's title Zaphnaṭh-Paaneah, all belong to a period which falls about 250 years *after* the Exodus, which probably took place under Menephthah, and we are therefore driven to the conclusion that the first few verses of the Book of Exodus and Genesis xli, 45, belong to a much later period than the story of the Exodus given in the Bible. These passages and the early chapters of the Book of Exodus were, in their original forms, the work of a writer who possessed accurate local knowledge of the Eastern Delta, and the assigning of late names to Joseph's wife and her father is the work of a later edition. It must never be forgotten that there is no mention whatsoever in the Egyptian inscriptions of an exodus of Israelites, and up to the present no monument of any kind has been found which can be said truthfully to refer in any way to their sojourn in Egypt. No surprise need be felt at this, for it was not the custom of Egyptian kings to commemorate the deeds of the peoples who were subject to them. That a great exodus of Israelites from Egypt took place cannot be doubted, but it is equally beyond doubt that the story of it in its present form is the work of one whose knowledge of the sequence of events was incomplete.

The **date** of the **Exodus** and the **route** which was followed by the children of Israel on their departure from Egypt have given rise to endless discussions and theories, none of which, however, explain away the difficulties of the Bible narrative. The exodus may have taken place 1270 B.C., 1314 B.C., or 1335 B.C., but the all-important fact to be considered is that, speaking historically, it could only have happened on the scale described in the Book of Exodus, in the reign of Menephthah during the period of the rising of the Libyans and others against the Egyptian power. As for the route they followed, the Israelites, we know, were living in Goshen, *i.e.*, in that portion of the Delta and of the Wâdî Ṭûmîlât which has Zaḳâzîḳ on the north Balbês on the south, and the modern Tall al-Kabîr on the east; and we know that they set out from the Wâdî Ṭûmîlât. When they did so, two

ways were open to them. They could either go into Syria by way of Tanis, or they could go eastwards through the district of Rameses, and so make their way to the northern end of the Red Sea, which it is supposed reached nearly as far as the modern town of Isma'îlîyah. Some think that having arrived at Succoth, the Egyptian Thukut, they passed into the desert at Etham, and then turned to the north, whilst others think that they turned to the south. The Bible narrative says they went to the south, in obedience to the command, "Turn and "encamp before Pi-hahiroth, between Migdol and the sea, over "against Baal-zephon" (Exodus xiv, 2). These frontier towns or fortresses were, no doubt, well known at the time when the narrative was written, but they cannot now be identified with certainty. If the Israelites marched southwards, three ways were open to them to cross into the desert. The first way passed between Lake Timsaḥ and the Bitter Lakes, the second lay to the south of the Bitter Lakes, and the third way was quite close to the modern town of Suez. The late Dr. Brugsch put forward a theory of the route of the Exodus which made the Israelites to pass through the Field of Zoan, and by the fortresses of Etham, Migdol, near Pelusium, the great Sirbonian Bog, and Pi-hahiroth, and so into Syria. The great drawback to this theory is the extreme improbability that the Israelites would have ventured to march straight into the line of strong Egyptian fortresses which had been built on the eastern frontier of the Delta, and which clearly it was to their interest to avoid. Moreover, we know that Etham and Migdol were common terms for "fortress," and there must have been several Ethams and Migdols between Goshen and Syria.

Taken together the known facts indicate that the Israelites made their way into the desert by the nearest route possible, and that route probably lay through some part of the country now occupied by the modern Lake Timsaḥ, which is relatively close to the eastern end of the Wâdî Ṭûmîlât. The narrative of the Book of Exodus calls the water which the Israelites crossed the "Yam Suph," *i.e.*, the "sea of reeds," a name which would never have been given to the sea in general; and there is no doubt that they called the water by that name because it was of considerable extent, and because it contained reeds. The identification of the "sea of reeds" with the Red Sea was made by someone who knew nothing about the geography of the Isthmus of Suez, but knowing that the Israelites had passed over a vast stretch of water, he assumed

that that water must be the Red Sea. The views on the subject of Goshen and the route of the Exodus which Professor Naville has enunciated deserve careful attention, for they are based on first-hand knowledge derived from the results of the excavations which he made in the Wâdi Ṭûmîlât, where he discovered the remains of the store city of Pithom. He has treated the subject of the Exodus and the identifications of the cities mentioned in the Bible narrative with common sense and moderation. In the present state of Egyptological knowledge it is impossible to "settle" the difficulties which beset the Exodus question, but the present writer, who has gone over the routes proposed both by Professor Naville and Sir William Dawson, thinks that, if the matter is to be considered from a practical standpoint, the only possible way for the Israelites to escape quickly into the Etham desert was by a passage across some portion of the ground which is now covered by Lake Timsaḥ. Recent investigations into the geography of the Eastern Frontier of Egypt suggest that the region at the northern end of the Gulf of Suez has changed very considerably since the early centuries of the Christian Era, and that it is impossible to identify satisfactorily all the sites mentioned in the Book of Exodus in connection with the departure of the Israelites from Egypt. It seems, however, to be generally admitted that the Gulf of Suez extended further to the north than it does to-day, and some think that the sea reached nearly as far as the northern end of Lake Timsaḥ.

III.—PORT SA'ÎD, ISMA'ÎLÎYAH, SUEZ, AND THE SUEZ CANAL.

PORT SA'ÎD.

Cook's Office.—Shâri'a Sulṭân Ḥussên.

Hotels.—Casino Palace Hotel, Eastern Exchange Hotel, Marina Palace Hotel, Continental Hotel.

Post Offices in the Rue al-Nil (Egyptian) and Rue Eugénie (French).

Telegraph Office of the Eastern Telegraph Co. on the Shâri'a Sutlân Hussên.

Telegraph Office (Egyptian).—Main Street.

Tramways through the town and to the Arab quarter and cemetery.

Cabs.—By the course 4 piastres, extra at night; per hour 12 piastres, at night 15 piastres.

British Consulate.—Rue al-Nîl.

U.S. Consulate.—Rue al-Nîl.

Churches.—Church of the Epiphany; Ste. Eugénie (R.C.).

Golf.—Daily at the International Sporting Club.

Motor Cars.—By the course, 10 piastres; per hour, 80 piastres, by night and day.

6. Port Sa'îd to Cairo.

Port Sa'îd is a town of very recent growth, and it owes its being entirely to the Suez Canal; in 1917 its population was 70,873, including 15,741 Europeans. About sixty years ago the site on which Port Sa'îd now stands was a spot whereon dwelt a few Arabs, who gained their livelihood as fishermen. When the engineers of the Suez Canal Company commenced operations on this narrow strip of sand there was barely sufficient room to erect a few tents and sheds. At first wooden houses, raised on piles, were constructed; and the dredgings from the harbour and from the channel leading to the mouth of the canal were employed for reclaiming and extending this sand-bank. When the site for a port in the Mediterranean, at the entrance to the Suez Canal, had to be selected, it was difficult to find on the flat shore a spot possessing some natural advantages that might prove of use in the construction of a harbour. The reason which finally led the Company's engineers to select the position which Port Sa'îd now occupies was that the line of deep water was found to be less distant from the shore at that point—30 feet of water at 2,870 yards—than at any other in the vicinity of that part of the Gulf of Pelusium. The port is formed by two breakwaters or moles; the western mole is about 2,726 yards long, and the eastern 1,962 yards, and the area which they enclose is triangular, and about 560 acres. These moles are 26 yards wide at the base, 12 yards high, 6 yards wide on the summit, and the slope of the sides is 1 in 1. Each block weighs 22 tons, and cost about £17. At the entrance to the port the depth of water is rather more than 30 feet, but the uniform depth of water in the harbour is 26 feet. On the west mole is a **lighthouse** about 175 feet high, and the flash of its electric light can be seen on a clear night at a distance of about 20 miles. Beyond the lighthouse, on the same mole, is a fine statue of **Ferdinand de Lesseps,** who was born in 1805 and died in 1894, and who is famous as the builder of the Suez Canal. In Port Sa'îd there is little to be seen which is not connected with shipping and the Canal, but the coaling operations which are here carried out on a very large scale, however unpleasant to the traveller, are always a source of interest. Loaded barges are brought alongside the vessel which is to be coaled, but before they are made fast gangways are run up, and scores of men, each bearing a basket

of coal, immediately begin their work amid shouts and cries and singing. The largest steamer, which may require several hundreds of tons of coal, can be supplied in about two hours, and when the work is carried on at night, the huge fires which illumine the barges produce a peculiarly weird effect. The Suez Canal steam tramway on the west bank of the Canal, which connected Port Sa'îd with Ismâ'îlîyah, has been converted into a railway, and the visitor is now able to journey to Cairo in about five hours instead of seven as formerly.

Leaving Port Sa'îd by the railway, the traveller skirts the eastern end of Lake Manzâlah, on the islands in which large numbers of birds congregate. The stations passed are: Râs al-'Êsh (kilom. 15), Tinah (kilom. 24), Le Cap (kilom. 34), Al-Ḳanṭarah (kilom. 45), where the traveller to Jerusalem leaves the train and crosses the Canal, Balaḥ (kilom. 55), and Al-Fardân (kilom. 65). Here the line leaves the Canal and runs across country to Isma'îlîyah.

Ismâ'îlîyah (called after Ismâ'îl Pâshâ) has a population of about 15,507. The town contains many pretty villas with gardens, and the verdant *labbakh* tree has been planted generously along the roads, which are clearly defined and well kept. A great deal of taste has been displayed by the inhabitants in laying out the streets and squares, and looking on the town from a distance it seems incredible that less than 60 years ago its site was a howling wilderness. Here the **sweet-water canal**, which is brought from the Nile at Zaḳâzîḳ, 50 miles distant, divides into two branches, the one entering the Suez Canal by double locks and the other running on to Suez. From 1862, when the town was founded, until 1877 the health of its inhabitants was very good; in the latter year, however, 335 cases of fever appeared, and the disease became endemic, and between 1884 and 1897 there were 1,700 cases of fever each year, and between 1898 and 1902 there were 1,800 cases of fever. Up to the end of 1897 the Suez Canal Company had spent nearly £32,000 on sanitary works and medicine, but no impression was made on the fever. Subsequently Major Ross was invited to examine the town, and he came to the conclusion that the fever was caused by the *anopheles* mosquito, which bred in vast numbers in the pools of stagnant water that lay round the town. On December 27th, 1902, it was decided to adopt Major Ross's system of dealing with the insect, and in 1903 there were only 213 cases of fever as against 2,209 in 1902. Of the 213 cases in 1903, 203 were

cases of those who had had fever previously; thus the number of new cases in 1903 was only 10. In recent years the number of cases of malaria has still further diminished.

After leaving Ismâ'îlîyah, which is about 94 miles from Cairo, the first place stopped at is **Nafîshah**; this is merely a station that belongs to the triangle by which trains to and from Cairo and trains to and from Suez arrive at and depart from Ismâ'îlîyah. About 12 miles from Nafîshah is **Abû Suwêr**, the station in the **Wâdî Ṭûmîlâṭ**; this Wâdî, or valley, is about 30 miles long, and runs almost due east and west, and leads into the tract of country which is called **Goshen** in the Bible. At mile 18 from Ismâ'îlîyah is **Maḥsamah**, a town which stands on the site of a part of a frontier fortress town built by Rameses II, about 1300 B.C.; in 1917 it had 11,974 inhabitants. Between Maḥsamah and Abû Suwêr are a number of ruins to which the name **Tall al-Maskhûtah** has been given; this name means the "hill of the statue," and the place was thus called by the Arabs because of a monolithic group in red granite, representing a king sitting between two gods. The inscriptions on the back of the group showed that the king was Rameses II, and Dr. Lepsius, without any hesitation, identified Tall al-Maskhûtah with the city of "Raamses" built by the Israelites during the oppression. This identification was generally accepted, and the place was henceforth called "Raamses" by Europeans until 1883, when the excavations which Professor Naville* made on the site proved that the Egyptian town which stood here was not Raamses at all, but **Pithom**, and an inscription gave the information that the district was called THUKU [hieroglyphs], by the Egyptians, and **Succoth** by the Hebrews. These discoveries were of great importance, for they showed beyond a doubt that Pithom was a town in Succoth, and that Succoth was in the neighbourhood of Goshen. Joseph said to Jacob, "And thou shalt dwell in the land of Goshen, and "thou shalt be near unto me . . . and there will I nourish "thee" (Genesis xlv, 10); and it was to Goshen that Jacob came from Canaan (Genesis xlvi, 28), and "Israel dwelt in the "land of Egypt, in the country of Goshen; and they had "possessions therein, and grew, and multiplied exceedingly" (Genesis xlvii, 27). We see that the Hebrews called Thuku

* *The Store City of Pithom*, London, 2nd edition, 1903

"Succoth," which means "tents," not because the Egyptian name meant "tents," but because they pronounced Thuku as Suku, and this done, popular etymology supplied a Hebrew meaning. In much the same way, as Professor Naville has already remarked, the word MESU, [hieroglyphs], * which means "child," was turned into the proper name "Moses" (Mosheh), and this done, the Hebrew philologists connected it with a root in their own language, which means "to draw out." In Exodus i, 11, *ff.*, we read, "Therefore did they (*i.e.*, the "Egyptians) set over them taskmasters to afflict them with "their burdens. And they built for Pharaoh treasure cities, "Pithom and Raamses. . . . And the Egyptians made the "children of Israel to serve with rigour: and they made their "lives bitter with hard bondage, in mortar, and in brick, and in "all manner of service in the field: all their service, wherein "they made them serve, was with rigour." The name of the Egyptian town excavated by Professor Naville was Pa-Temu, [hieroglyphs], whence is derived the Hebrew form Pithom, with which all are familiar. In the course of the excavations a large number of chambers were found, the walls of which were built of crude bricks, and were from 6 to 9 feet thick, the chambers were rectangular in shape, and were not connected by doors or any other opening. There is little doubt that these chambers were the store-places for grain, which was shot into them through holes in the roofs, and it is evident that a very large reserve of grain could be kept in them. The object of such "treasure cities," or rather store cities, was to supply the troops that were stationed on the frontier to "ward the marches" between Egypt and Syria. The town of Raamses was not far from Pithom, and there is every reason to assume that it was in the construction of the crude brick buildings which belonged to them that the Israelites worked. In respect of the bricks of Pithom, Mr. Villiers Stuart remarked (*Egypt after the War*, p. 81), "I carefully examined the "chamber walls, and I noticed that some of the corners of the "brickwork throughout were built of bricks without straw. "I do not remember to have met anywhere in Egypt bricks so "made. In a dry climate like Egypt it is not necessary to

* The name MESU [hieroglyphs] has actually been found in hieroglyphics. (*See* Ostrakon in the British Museum, No. 5631.)

" burn the bricks ; they are made of Nile mud, and dried in the " sun. Straw is mixed with them to give them coherence." This evidence is not so conclusive as it seems, for often straw (*i.e.*, *teben*) is only used in mud bricks when it can be spared for this purpose, and everywhere in Egypt, especially in poor districts where all the straw is required for food for the cattle, mud bricks in which there is no straw " binding " will be found.

In 1908 M. J. Clédat carried out excavations at Tall al-Maskhûṭah, near the ruins of the old town of Pa-Tem (Pithom), and recovered a number of small objects chiefly of the Saïte Period. Of the older things, the most important is a cylinder-seal which was made for an official who served under Merenrā and Pepi II, kings of the VIth dynasty. The Horus names of these kings are given side by side, and beneath them is cut a scene representing a king sacrificing a prisoner to his god. The official for whom the cylinder was made was a priest on the foundations of the pyramids of king Åssȧ (Vth dynasty) and king Pepi I (VIth dynasty). The cylinder is important as proving that there must have been some fortress on the site under the Ancient Empire, and that this stood on the eastern frontier of the Delta.

At **mile 24** from Isma'îlîyah is **Ḳaṣâṣîn,** commonly spelt Kassassin. It was here that on August 28th, 1882, a battle between the British and the forces of Arabi Pâshâ was fought, and General Graham deeated an Egyptian force of 1,000 cavalry, 8,000 infantry, and 12 guns. The British loss was 11 killed and 67 wounded. The famous " moonlight charge " was an episode of this battle, but it is said to have had no real effect on the fortunes of the day. At **mile 34** from Ismâ'îlîyah is **Tall al-Kabîr,** more correctly At-Tall al-Kabîr, *i.e.*, the Great Hill, a wretched village, but made famous by Lord Wolseley's victory over Arabi Pâshâ in 1882. Arabi was exiled here with his mutinous regiment in 1881, and the place had been used as a military station and camp for some years. Tall al-Kabîr and Kafr ad-Dawâr are the two great strategical points to be held in defending Lower Egypt. Arabi's force consisted of 70 guns, 18,000 infantry, three regiments of cavalry, 6,000 Badâwîn, and at Aṣ-Ṣâlaḥîyah was Arabi himself, with 24 guns and 5,000 men in reserve. The battle began at dawn on September 13th, and by 6.45 a.m. Arabi's headquarters and the canal bridge were seized ; the British casualties were 459 killed, wounded, and missing, and the Egyptian losses were 2,000. Arabi and his second in command were the first to

escape, but the Egyptian soldiers displayed real courage, as the contents of the trenches proved. The British cemetery is to the south of the railway line, a little distance from the station. The army of Arabi ceased to exist after the battle of Tall al-Kabîr, Zaḳâzîḳ was occupied at 4 p.m. on the day of the fight, Cairo was occupied by General Drury-Lowe at 4.45 P.M. the following day, and Lord Wolseley arrived by train on the morning of the 15th.

At **mile 40** from Ismâʿîlîyah is **Abû Hammâd** (population 3,709), four miles further on is **Abû Al-Akhdar**, and in four miles more Zaḳâzîḳ is reached. **Zaḳâzîḳ** is the capital of the province Sharḳîyah, and contained in 1917 some 41,741 inhabitants. The town is an important centre of the cotton trade, as the trains loaded with steam-pressed bales, each weighing about 760 pounds, which are seen in the sidings testify; here, too, there is a grain market, and many wealthy merchants, both native and European, live in and about the town. Zaḳâzîḳ probably stands on the western boundary of the **Land of Goshen**, for the fertility of the district is unsurpassed, and the crops are abundant. The large stream which runs through the town is the Muʿizz Canal, and it represents the old Tanitic arm of the Nile; the town is connected by rail with Manṣûrah, and there are two lines to Cairo, one *viâ* Balbês, and the other *viâ* Banhâ. Close to the town is the **Fresh Water Canal**, which in many places, follows the course of the Nile and Red Sea Canal first built by Rameses II, and later repaired and enlarged by Necho, Darius I, Ptolemy II, Trajan, and one of the early Khalîfahs. Quite close to the station are a number of mounds which mark the site of the great city, which the prophet Ezekiel calls "Pi-beseth," and of which he says: "The young men of "Aven (On, or Heliopolis) and of Pi-beseth shall fall by the "sword: and these cities shall go into captivity. At Tehaphnehes "also the day shall be darkened, when I shall break there the "yokes of Egypt," etc. (Ezek. xxx, 17, 18). Pi-Beseth is the city Pa-Bast, [hieroglyphs], or [hieroglyphs], of the hieroglyphic inscriptions, and the **Bubastis** of classical writers This name is preserved in the Arabic Tall Basṭah. The excavations made at this place by Professor Naville for the Egypt Exploration Fund in 1887–8 prove that a flourishing city, with a temple, stood here so far back as the IVth dynasty, and that most of the great kings of the VIth, XIIth, XVIIIth, XIXth, XXIInd, XXVIth, and XXXth dynasties repaired, or

added to or beautified, the temple and city. Bubastis was captured by the Persians about 352 B.C., and they wrecked the strong walls, which were several miles long, and inflicted injuries on the fortifications from which the town never recovered. It is probable that the whole of the land within the walls was raised above the level of the surrounding country by artificial means. The great deity of Bubastis was the goddess Bast, and she was worshipped under the form of a cat-heated lioness; she is represented with a disk encircled by a uræus on her head, and she holds a lotus sceptre in one hand. The cult of this goddess is very ancient, and it goes back to the time when the cat was regarded as the incarnation of the chief deity of the neighbourhood; under the influence of the Sun-worshippers, who came into Egypt from the east, the old attributes of the goddess were forgotten, and new ones of a solar character were ascribed to her. The festivals of Bast were celebrated with great rejoicings, and it is said that so many as 700,000 visitors sometimes arrived at Bubastis on such occasions. The account of the temple and its festivals, according to Herodotus (Book II, §§ 60, 137, 138), is as follows:—

"Although other cities in Egypt were carried to a great height, "in my opinion the greatest mounds were thrown up about the city "of Bubastis, in which is a temple of Bubastis well worthy of "mention; for though other temples may be larger and more costly, "yet none is more pleasing to look at than this. Bubastis, in the "Greek language, answers to Diana. Her sacred precinct is thus "situated: all except the entrance is an island; for two canals from "the Nile extend to it, not mingling with each other, but each "reaches as far as the entrance of the precinct, one flowing round "it on one side, the other on the other. Each is 100 feet broad, and "shaded with trees. The portico is 60 feet in height, and is "adorned with figures 6 cubits high, that are deserving of notice. "This precinct, being in the middle of the city, is visible on every "side to a person going round it: for as the city has been moulded "up to a considerable height, but the temple has not been moved, "it is conspicuous as it was originally built. A wall sculptured "with figures runs round it: and within is a grove of lofty trees, "planted round a large temple in which the image is placed. The "width and length of the precinct is each way a stade [600 feet]. "Along the entrance is a road paved with stone, about three stades "in length [1,800 feet], leading through the square eastward; and "in width it is about four plethra [400 feet]: on each side of the "road grow trees of enormous height; it leads to the temple of "Mercury.

"Now, when they are being conveyed to the city of Bubastis, "they act as follows: for men and women embark together, and "great numbers of both sexes in every barge; some of the women "have castanets on which they play, and the men play on the flute

"during the whole voyage; the rest of the women and men sing "and clap their hands together at the same time. When in the "course of their passage they come to any town, they lay their "barge near to land, and do as follows: some of the women do as "I have described; others shout and scoff at the women of the "place; some dance, and others stand up and behave in an unseemly "manner; this they do at every town by the river-side. When they "arrive at Bubastis, they celebrate the feast, offering up great "sacrifices; and more wine is consumed at this festival than in all "the rest of the year. What with men and women, besides "children, they congregate, as the inhabitants say, to the number "of seven hundred thousand."

Between Zakâzîk and Cairo, *viâ* Banhâ, the following stations are passed:—**Zankalûn,** with 7,334 inhabitants; **Gudayadat al-Hâlah,** with 8,203 inhabitants; **Mînyat Al-Kamh,** with 6,451 inhabitants; **Mît-Yazîd,** with 4,327 inhabitants; and **Shablangah,** with 7,202 inhabitants. The distance between Zakâzîk and Banhâ is about 20 miles; Banhâ and the remainder of the route to Cairo have already been described.

7. Port Sa'îd to Suez, viâ the Suez Canal.

On leaving Port Sa'îd the canal at once enters **Lake Manzâlah,** through which the channel runs for 29 miles; the waters of the lake are shallow, and the bottom is mud, which has been deposited by the Pelusiac, Tanitic, and Mendesian branches of the Nile, all of which flow through the lake. The banks on each side of the canal were formed of the materials which were dredged up from the bottom. Enormous flocks of water fowl may be seen standing in shallow lagoons at a short distance from the railway. On the site of Lake Manzâlah stood Tanis, the capital of the Tanitic Nome, the Zoan of Numbers xiii, 22, and the **Field of Zoan** of Psalm lxxviii, 12, 43. The fields were exceedingly fertile, and wheat and vines were grown abundantly. About the eighth or tenth century the sea invaded the district which, until the present day, has remained a shallow marsh. The draining of Lake Manzâlah has been begun. At **Al-Kăntărăh,** *i.e.*, the "**Bridge,**" at the southern end of Lake Manzâlah, is an important railway station on the **Egypt-Palestine Railway.** The exigencies of the shipping traffic of the Suez Canal made it necessary to remove the railway bridge, and passengers for Jerusalem, Bêrût, Damascus, etc., must now leave their carriages on the west bank of the canal, and cross by ferry to the **railway station on the east bank.** For the journey from **Cairo to Jerusalem,** *see* p. 286 *ff.*

The place bears this name because it stands on the narrow strip of land which divides Lake Manzâlah from **Lake Balaḥ,** and which may be regarded as a bridge. As a matter of fact the old caravan route between Egypt and Syria passed over this "bridge." A small town seems to have existed near this "bridge" from time immemorial, and it was a place of importance in Ptolemaic times and later, for in excavating the site for the Railway station, cemeteries of the Ptolemaic and Roman periods were discovered. A little to the north of Al-Ḳanṭarah are the mounds of Tall Dafannah, which mark the site of the city **Tahapanes** (Jeremiah ii, 16), *i.e*, the **Daphnæ** of the Greeks. The canal runs for two miles between low sand-hills, when it enters Lake Balaḥ, which is eight miles long; at the end of the lake is **Al-Fardân,** and here the canal enters a cutting which extends to Lake Timsâḥ. Four miles south of Al-Fardân is **Al-Gisr,** which is the deepest cutting along the whole course of the canal, for mud and sand had to be excavated to a depth of about 70 feet. Three lines of tramway were laid down, and six engines and 250 wagons were employed in removing the soil; the work was finished in January, 1868. It was to this point that, during the early stages of the undertaking, the 20,000 *fallâḥîn* who were supplied by the Government were sent in order to make a narrow channel wherein the dredgers could be floated and utilized. Two years were spent in making this channel, and then the waters of the Mediterranean flowed into the basin of Lake Timsâḥ, which took five months to fill. Most of the excavation was done by piecework, and each labourer earned from 1*s*. 6*d*. to 2*s*. 6*d*. per day. The circumference of Lake Timsâḥ is nine miles, and 95,000,000 cubic yards of water were required to fill it.

The second half of the Suez Canal, that from Ismâ'îlîyah to the Red Sea, may be divided into two portions; the first extends from Lake Timsâḥ, through the **cutting of Ṭusûn** to the southern end of the **cutting of the Serapeum**, and the second from the **Bitter Lakes** and through the Shalûf cutting to Suez. Near the Serapeum monuments of Darius have been found. The length of the Bitter Lakes is about 24 miles. In the **Shalûf** cutting a stratum of conglomerate rock was found, about 52,000 cubic yards of which had to be blasted and cleared away. Numerous fossil remains were found here, and those of the shark in considerable quantities.

The journey from Ismâ'îlîyah to Suez by train is uninteresting. Nearly three hours are spent in covering the 60 miles, and beyond a glimpse of the Bitter Lakes, and the rigging of a ship passing through the Suez Canal, there is little to be seen on the west side of the railway. On the east side the desert scenery and the mountains are, in places, very picturesque.

SUEZ.

Cook's Agent.—Mr. G. C. Mavro.

Hotels.—Hotel Bel-Air, Savoy Hotel. **At Port Tawfik,** Hotel du Sinai.

Post and Telegraph Offices.—Eastern Telegraph Co., near Railway Station and at Port Tawfik. Egyptian State Telegraphs, near Governorate and Port Tawfik. Post Office, near French Consulate and also at Port Tawfik.

Trains every hour between the town and Port Tawfik. Single fares only, payable in train, 1st class, 15 millîms; 2nd class, 10 millîms.

Golf.—At Arbaîn.

Tennis.—At Suez and Port Tawfik.

British Consulate.—At Port Tawfik.

Norwegian Consulate.—At Port Tawfik.

Dutch Consulate.—At Port Tawfik.

American Consulate.—None.

Greek Consulate.—At Suez.

French Consulate.—At Suez.

Danish Consulate.—At Suez.

Spanish Consulate.—At Suez.

Swedish Consulate.—At Suez.

Portuguese Consulate.—At Suez.

Italian Consulate.—At Suez.

Russian Consulate.—At Suez.

Motor Cabs.—Per hour, P.T. 80; for each half-hour, 50 piastres; for each quarter-hour's waiting or less, 5 piastres.

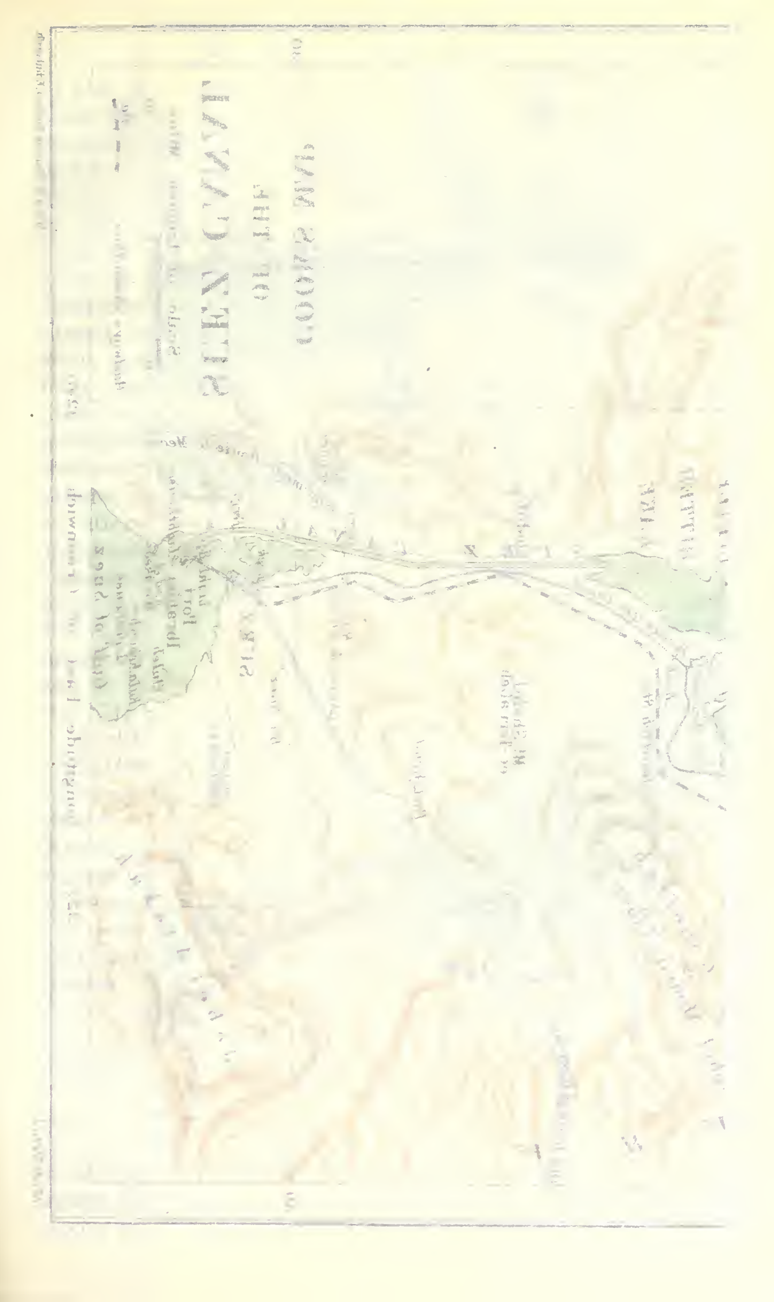
On approaching the town of **Suez** the canal is continued into the Gulf of Suez, which ends in a shallow. In 1860, before the works were begun, Suez was an unimportant village, containing, according to Mr. J. Clerk, about 4,000 inhabitants, who lived by fishing and by work on the large steamers which embarked and disembarked passengers by the overland route; the absence of a good supply of fresh water and the dearness of provisions effectually prevented the growth of the town. In 1917 its inhabitants numbered 28,403 persons. Formerly, after the opening of the Suez Canal, when passengers disembarked and embarked at Suez, the little town was comparatively prosperous, but in recent years, in spite of the reclamation of land and the plentiful supply of fresh water, its development has become arrested. The history of Suez in antiquity is not very clear, and though a few unimportant objects of the dynastic period have been found in its neighbourhood,

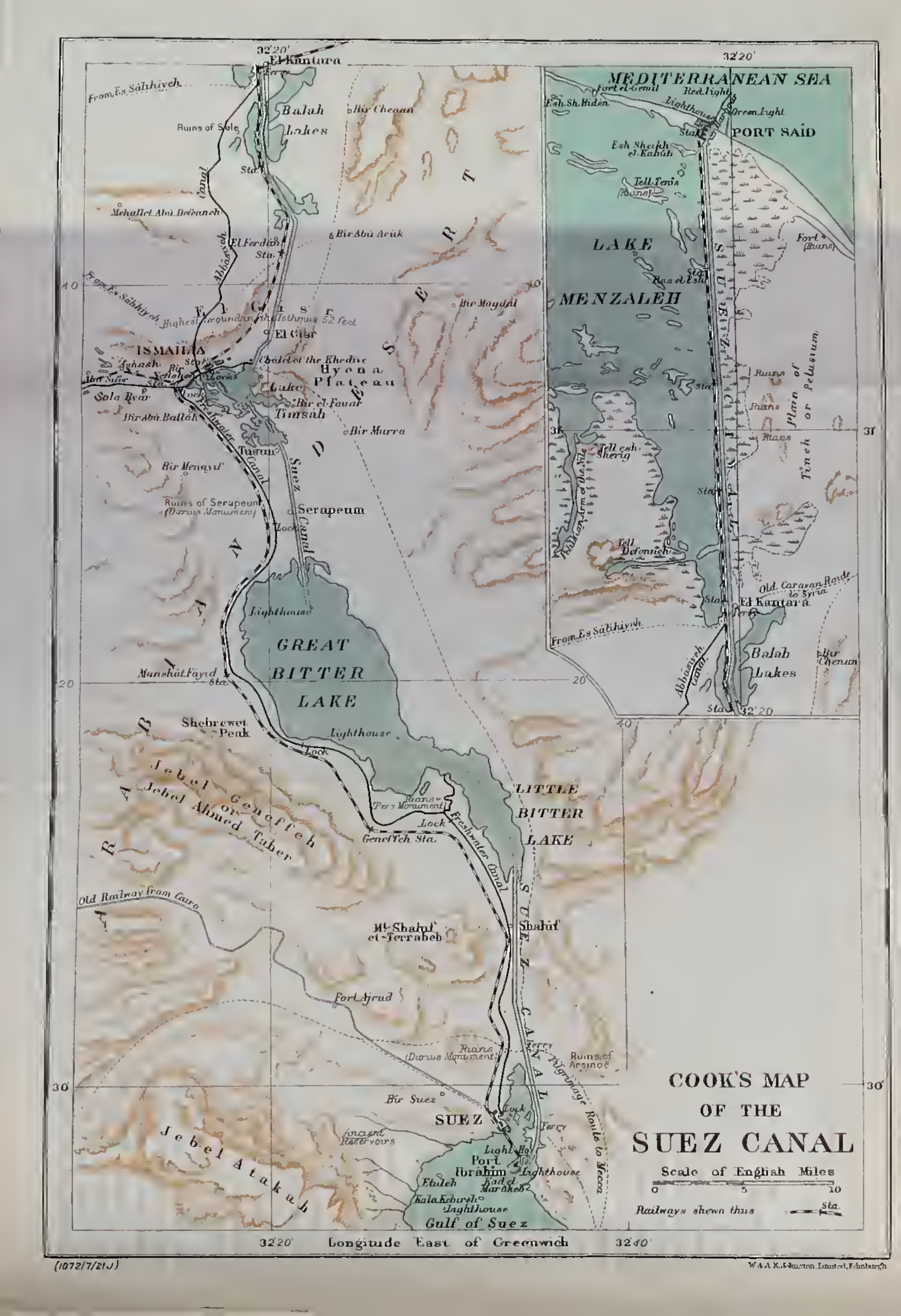
the Egyptian inscriptions yield no information about it. Classical writers speak of a town or fortress called Clysma, which was situated at the head of the western gulf of the Red Sea, and it seems that it must have stood quite near the modern Suez. An ancient tradition makes the passage of the Israelites across the Red Sea to have taken place near here. There is little to interest the traveller in Suez, for the bâzârs are unimportant, and the shops only contain the tawdry things which are bought by the poorest of native travellers in their passage through the town. As Port Sa'îd is fittingly ornamented with a statue of M. de Lesseps, that wonderful man to whom the world owes the successful completion of the Suez Canal, so is Suez ornamented with a statue of **Thomas Waghorn,** which was set up by M. de Lesseps on the island made from the dredgings of the canal. Waghorn was born in 1800, and died in January, 1850. He served in the navy for six years, and was a pilot in the Bengal Service for five years; between 1827 and 1830 he advocated the overland route from Cairo to Suez for passengers to India, and before 1841 actually proved his views to be possible by organizing the transport service for it. He arrived in London on October 31st, 1845, bringing with him the Bombay mail of October 1, and the ordinary express mail did not arrive until two days later; he was fully persuaded that he could bring the mail from Bombay to London in 21 days. He was made lieutenant in the Royal Navy in 1842, but the man who had done so much for Britain and British commerce, and had fought in the Burmese war, was allowed to end his days in penury and to die in want.

Travellers to Suez who have a day to spare usually visit the **Well of Moses,** or Fountain of Moses, which is situated on the eastern shore of the Gulf of Suez, about 7 miles from the town. Tradition asserts that Moses and the Children of Israel rested here and drank water after they had crossed the sea, but the Moses after whom the place is named was probably not Moses the great law-giver. The Well of Moses is in reality a small oasis, about half a mile in length, where there were said to have existed originally seven gardens or groves, and 12 fountains of brackish, or actually salt, water. There are many beautiful date palms here, and the luxuriant growth of green things is very refreshing to the eye. The tradition referred to above would identify the Well of Moses with Elim "where were "twelve wells of water, and three score and ten palm trees," and where the Israelites encamped (*see* Exodus xv, 27).

Another tradition says that the waters which the Israelites drank were made sweet by a plant which Moses cast into it by Divine command, and this would identify the place with Marah (Exodus xv, 23–25).

Antoninus, called by some "Martyr," tells us in his "Itinerary" how he journeyed to Sachot and to Magdal, and also to the place where there were 72 palms and 12 wells. Here there were a little castle called Surandala, and two houses for receiving strangers, and here he saw pepper trees growing, and plucked some of their fruit. Next he came to the place where the Israelites camped after crossing the sea, and then he passed on to the spot on the sea shore where they came up out of the sea. Here he found a chapel dedicated to Elijah, and on the other side of the sea, where the Israelites entered it, a chapel dedicated to Moses. Close by was the little town of Clysma to which the ships from India came. Stretching out of the sea he found a gulf which reached far inland, and wherein ebbed and flowed the tide, and Antoninus declares that when the tide was out it was possible to see the weapons of Pharaoh and the remains of the wheels of his chariot, all of which, however, were turned into marble. Antoninus made his famous journey about the year 570, but the tradition about the scene of the overthrow of the hosts of Pharaoh is considerably older. This narrative is interesting, because it shows that the belief which asserted that the Egyptian army was drowned near Suez was accepted in his day; it is also important as proving that Clysma was a port for ships which traded between India and Egypt, and it suggests that the Indian merchandise was carried overland, probably to the city which is represented by the modern Cairo, and to Alexandria. Had the canal from the Red Sea to the Nile (Amnis Trajanus) been in working order, the wares of India would no doubt have been carried by it to the great cities of the Delta. The geography of the district at the southern end of the present Suez Canal is of great interest, but it is very difficult to identify the sites mentioned by classical and other writers, and to harmonize the statements about their position which are made by ancient historians. Some recent authorities think that the conformation of the coast at the north end of the Gulf of Suez was different about 2,000 years ago from what it is at the present time, and if this be so, the generally accepted identifications of sites will need revision.




COOK'S MAP
OF THE
SUEZ CANAL
Scale of English Miles
Railways shewn thus
MEDITERRANEAN SEA
PORT SAID
LAKE MENZALEH
El Kantara
Balah Lakes
ISMAILIA
Lake Timsah
Serapeum
GREAT BITTER LAKE
LITTLE BITTER LAKE
SUEZ CANAL
SUEZ
Port Ibrahim
Gulf of Suez
Jebel Atakah
Jebel Geneffeh or Jebel Ahmed Taher
Shebrewet Peak
Mt. Shahuf et-Terrabeh
Fort Ajrud
Hyena Plateau
El Gisr
Old Railway from Cairo
Pilgrimage Route to Mecca
Longitude East of Greenwich
(1072/7/21J)
W. & A. K. Johnston, Limited, Edinburgh

The **Suez Canal.**—A glance at the map of Africa will show that this vast country is attached to Asia by means of a relatively very narrow strip of land, *i.e.*, the **Isthmus of Suez,** and a closer examination reveals the fact that this strip of land, though consisting chiefly of swamp and sand, has for thousands of years been a serious obstacle to communication by ship between Europe and the East. At the south end of the Isthmus is the Gulf of Suez, and at the north of it rolls the Mediterranean. It is possible that in remote ages the sea flowed entirely over the place where the Isthmus now is, but some authorities hesitate to assert this, because the marine faunas of the two seas neither resemble each other, nor are found together. In historic times probably nothing more than a series of salt-water lagoons existed between the two seas, and this must certainly have been the case in the Pharaonic period, otherwise the kings of Egypt would never have felt compelled to attempt the great work of constructing a canal. The Egyptians in the reign of Rameses II, 1330 B.C., seem to have contrived to make a canal, about 92½ miles long, which ran from the city of Bubastis to the head of the Gulf of Suez; this canal passed through the Bitter Lakes for a distance of about 27 miles. Some 720 years later, Nekau (Necho), the son of Psammetichus, determined to make a canal to connect the Nile with the Red Sea, and he began the work.

Herodotus tells us that he was warned to desist from the undertaking by an oracle which declared that he was only constructing it for the use of the barbarians. Notwithstanding the threats of famine and disaster which the oracle indulged in, Necho carried on the work until he lost 120,000 Egyptians, when he was compelled to abandon it. The labours of Necho were, however, not in vain, for Darius the Persian made use of them in the construction of his canal, and this channel was maintained and improved by the Ptolemies, and later by the Romans under Trajan. Ptolemy II mentions quite distinctly that "he dug "out the canal in the east of Egypt to make it his frontier "against the desert lands" Herodotus says that the canal was sufficiently wide to admit two triremes abreast, and that the navigation from sea to sea occupied about four days; Pliny estimated its width at 100 feet, and

Strabo at 100 cubits, *i.e.*, 150 feet, and both writers are probably correct, for the traces of the canal which still exist indicate that its width varied between 100 and 200 feet. Cleopatra, after her defeat at Actium, endeavoured to save the remnant of her fleet by passing it through this canal into the Red Sea, but she failed, owing to the lowness of the Nile at that season.

Of the history of the canal during the early centuries of the Christian era we know nothing, but it seems that it must have become blocked, for shortly after the conquest of Egypt by the Arabs in 640 'Amr ibn-al-'Âṣi, the Muḥammadan general, proposed to make a canal direct from Suez to the Gulf of Pelusium, and to restore the old canal of the Pharaohs. His object was to connect Egypt with Arabia, and to make a route for the transport of grain from one country to the other. 'Amr's commander-in-chief opposed the scheme until 649, when the canal was reopened, and it remained in a navigable condition for about 18 years; it was filled up in 767 by a Caliph who was fighting against Mecca and Madînah, and who hoped, by stopping the supply of grain, to starve out the populations. Between the ninth and the eighteenth centuries many far-sighted rulers wished either to open up the old canal or to make a new one, but the cost and labour of such an undertaking prevented the translation of the wish into work.

In 1798 Napoleon Bonaparte, having himself found remains of the old Egyptian canal near Suez, at once perceived the importance of water communication between the Mediterranean and the Red Sea, and appointed a Commission to inqure into the matter; and M. Le Père was directed to prepare a plan of the route of a canal across the Isthmus of Suez, which should include the restoration of the old channel. M. Le Père declared the level of the Red Sea to be 30 feet higher than that of the Mediterranean, and he proposed to overcome the difficulty as to levels by a series of locks. He was so certain of the correctness of his views that he wrote:—"It is therefore "certain, after a careful study of the surveys we have made, "that the Delta is liable to be inundated by the waters of the "Red Sea, and that the fears entertained by the ancient "Egyptians of submersion in case a canal were made were "well grounded in past times, when the Delta, and the bed of "the Nile itself, were undoubtedly at a lower elevation." But Napoleon, though baffled, did not give up the idea of carrying out the scheme.

During the early years of the last century M. Talbot proposed to build a canal from Suez to Cairo, and to take it by an aqueduct over the Nile at Cairo, and thence to the Mediterranean at Alexandria. In 1846 M. Bourdaloue, after making a double survey from Suez to Tinah, and from Tinah to Suez, decided that the difference between the levels of the two seas was so slight that, if the canal were made, it would be unnecessary to face the embankments, except in places near the Red Sea. Meanwhile, Chesney had surveyed the route for the canal across the Isthmus of Suez, and it is an interesting fact that the present canal exactly follows the route marked out by him. In 1849 M. Ferdinand de Lesseps worked out a scheme for a canal across the isthmus, and in 1854 he brought his plans before Sa'îd Pâsha, who supported them warmly and gave him a preliminary concession which authorised him to form a company for the purpose of excavating a canal between the two seas. M. de Lesseps visited England, and found many capitalists ready to help him, but the British Government under Lord Palmerston looked coldly on the scheme, and even the French Government were not over-pleased with it. When it became evident that the Company would certainly be floated, the British Government, through the British Minister at Constantinople, brought all its influence to bear on the Porte to induce it to veto the making of the canal. As soon as possible M. de Lesseps had a new survey of the route made by Linant Bey and Mougel Bey, which was finished in 1855, and submitted to an International Commission nominated by the Great Powers of Europe. The Commission declared the scheme to be possible, and M. de Lesseps obtained a second concession, notwithstanding that the Sultan had declined to confirm the previous one which had been submitted to him by the Viceroy. The Suez Canal Company was then finally organized, nearly on the same basis on which it at present stands; the concession is to last 99 years from the date of the opening of the canal, and the Government to receive 15 per cent. annually of the earnings of the Company.

In January, 1856, the Porte objected to some of the details connected with the working of the scheme, and so brought everything to a standstill for nearly two years. Finally, the whole matter was submitted for arbitration by the Viceroy of Egypt to the Emperor Napoleon, who in July, 1864, awarded the Company an indemnity of £3,360,000. Meanwhile M. de Lesseps had

many serious difficulties to contend against, and he and his engineers were ordered to leave the country; and on one occasion, when cholera was raging, all their workmen ran away. When the works were commenced, the engineers were confronted with the difficulty of obtaining drinking water. In 1856 the Egyptian Government had agreed to make a fresh-water canal from Isma'îlîyah to Port Sa'îd, but having experience of the tactics of high officials, M. de Lesseps soon realized that if it was to be made within any reasonable period his Company must make it. Before the fresh-water canal was constructed, 3,000 camels and donkeys were employed in carrying water from the Nile to the works; when the Company had made the fresh-water canal, the Egyptian Government in 1863 purchased it for £400,000. The machinery employed in the making of the Suez Canal cost £2,400,000, and it is calculated that 96,938,066 cubic yards of mud, sand, etc., were dredged and excavated; the cost of the coals consumed was £40,000 per month. Mention has already been made of the difference in level which exists between the Mediterranean Sea and the Red Sea, and we may also note in passing the action of the tide, which is felt in the southern portion of the canal between Suez and the Bitter Lakes. There is a regular flow and ebb, the flow running in for seven hours, and the ebb running out for five hours. At the Suez entrance the rise at spring tides, unless affected by strong winds, is between 5 feet and 6 feet; about half-way from Suez to the Small Bitter Lake, a distance of 6 miles, it is under 2 feet; at the north end of the Small Bitter Lake, a few inches only; while at the south end of the Great Bitter Lake there is scarcely any perceptible tidal influence. Since the filling of Lake Timsâḥ by the waters of the Mediterranean in April, 1867, the level of the Great Bitter Lake has risen 4 inches, and there is a current of from half a mile to a mile per hour always running from Lake Timsâḥ towards the Mediterranean.

The exact distance across the isthmus from Tinah, which marks the site of Pelusium, to Suez is only 70 miles, but the actual distance which the canal traverses from Port Sa'îd to where it enters the Red Sea, a little to the south-east of Suez, is **100 miles.** This additional length is amply compensated by the natural advantages gained in the adoption of the present line, and the credit of suggesting this particular route is due to M. Lavallay, who saw how the work would be facilitated, and the moneys economized by making the beds of Lake

Manzâlah, Balaḥ, Timsâḥ, and the Bitter Lakes form parts of the bottom of the new canal. About 60 miles of the canal's course lies through these lakes. The width of the canal at the Suez end is about 300 yards in the widest part. The width of the canal between banks in 1920 varied between 480 and 525 feet; its width at the bottom was between 180 and 225 feet, and its depth between 36 and 40 feet.

The inauguration of the Suez Canal took place on November 16th, 1869, with splendid ceremonies. A benediction of the canal in Arabic was pronounced by the Shêkh Apagada of Cairo, and Monsignor Bauer, Archbishop of Alexandria, conducted an impressive service in the presence of the Khedive, the Emperor of Austria, the Empress of the French, and a crowd of notables of every nationality, and pronounced an eloquent encomium on M. de Lesseps, and on the "obscurs illustres" who had fallen in the course of the work. The cost of entertaining the guests and the inaugural fêtes is said to have been about £2,000,000; some declare that they cost £4,000,000, and some name even a higher figure. The Opera House at Cairo cost £60,000, the palace built at Isma'îlîyah for the occasion £40,000, and for several weeks hospitality was dispensed lavishly to everyone who asked for it from one end of the canal to the other. At the opening ball 6,000 persons were present, but of these 2,000 were uninvited.

The total amount of money received by the Suez Canal Company up to April 30th, 1863, was £13,853,866. The original capital was subscribed in 400,000 shares of £20. In 1868 an additional sum of £4,000,000 was needed, and 333,333 bonds at £12 were issued; only £1,143,687 of this amount were subscribed, and the balance of £2,856,313 was raised in a few days by lottery. In 1871 a loan of £800,000 was raised, and further loans were raised in 1880 and 1887. Besides the ordinary shares there were 100,000 founders' shares, which gave their owners the right to participate in the surplus profits under certain conditions. In 1875 Isma'îl Pâshâ sold 176,602 Suez Canal shares to the British Government for £3,976,582 sterling; these shares are now worth about £40,000,000. On April 7th, 1911, the Egyptian Government brought before the General Assembly proposals with regard to the renewal of the Suez Canal Concession, and after a prolonged discussion, they were rejected by 66 votes to one. It will be remembered that the concession of the Suez

Canal Company expires on November 17th, 1968. The proposed Convention, which was rejected by the Egyptian General Assembly, provided that the concession should be prolonged for an additional 40 years to the end of 2008. The Company was to pay the Government £E.4,000,000 in four equal annual instalments beginning on December 15th 1911; from 1921 the Government was to receive a proportion of the net revenue, rising from 4 per cent. in 1921 to 12 per cent. in the years 1961–8. From January 1st, 1969, to the expiration of the prolonged concession in 2008, the net revenue was to be divided between the Company and the Government on the following plan:—When below £2,000,000 the whole was to go to the Company; when between £2,000,000 and £4,000,000, £2,000,000 was to go to the Company and the rest to the Government; when over £4,000,000 it was to be divided equally. From January 1st, 1969, the Government was to forgo the 15 per cent. of the receipts allotted to the Egyptian State by Article 63 of the present Convention. From the same date the Government was to be represented on the Board of Administration by three members. The following figures will illustrate the development of traffic on the Suez Canal:—

Year.	No. of Vessels.	Gross Tonnage.	Receipts.	Passengers.
			Francs.	
1869	10	10,557	54,460	—
1874	1,264	2,423,672	24,859,383	73,597
1879	1,477	3,236,942	29,686,060	82,144
1884	3,284	8,319,967	62,378,115	148,298
1885	3,624	8,985,411	62,207,439	201,771
1889	3,425	9,605,745	66,167,579	175,505
1896	3,409	12,039,858	79,569,994	308,227
1897	2,986	11,123,403	72,830,545	191,215
1900	3,441	13,699,237	90,623,608	282,194
1901	3,699	15,163,233	100,386,397	270,221
1907	4,267	20,551,982	116,000,096	243,580
1908	3,795	19,110,831	108,452,235	218,785
1909	4,239	21,500,847	120,642,677	213,121
1912	5,373	28,008,945	136,423,831	266,406
1914	4,802	26,866,340	122,248,853	391,773
1915	3,708	21,027,457	93,522,616	210,530
1916	3,110	16,894,288	80,862,403	283,030
1917	2,353	11,414,482	64,147,850	142,313
1920	4,000	17,500,000	150,000,000	—

The total expenditure in 1920 was 60,000,000 francs plus 11,500,000 of francs sunk in improvements.

Of the 2,353 vessels which passed through the canal in 1917, 1,647 were British, 163 French, 33 Dutch, 4 Russian, 231 Italian, 8 Spanish, 20 Norwegian, 15 American, 11 Danish, 127 Greek, 7 Swedish, 6 Portuguese, and 80 Japanese. Since the introduction of the electric light, ships have passed through the canal by day and by night. In 1917 the mean duration of passage for all vessels navigating the canal was 15 hours 44 minutes.

The saving of distance effected by the Suez Canal for a ship sailing from New York, or England, or Marseilles, or St. Petersburg, to the East amounts to 3,600, 4,840, 5,940, and 4,840 nautical miles respectively.

PART III.

UPPER EGYPT.

Cairo to Luxor; the Temples and Tombs of Thebes; Luxor to Aswân; Aswân (Shallâl) to Wâdî Ḥalfah (Second Cataract).

(a) By Steamer on the Nile to Aswân.
(b) By Railway to Aswân.

THE marvellous monuments from which Egypt's long history has been deciphered lie mainly along and within easy reach of the banks of the Nile, and the most enjoyable method of visiting them is by one of Messrs. Cook's First Class Tourist Steamers, alluded to on page 22. These vessels make frequent sailings during the season between Cairo, Luxor, and Aswân, and between Aswân and Wâdî Ḥalfah, making long halts at every place of interest, tying up to bank each night by some historic town and providing the means for visiting each famous temple and tomb within reach. Native life and manners as seen from the steamer, both on the river and at the various stopping places, are as quaint a study as can well be imagined. You see the "Gyassa," or sailing boats, gliding along, their huge sails spread on long tapering masts, and gracefully bending to the wind. Now pyramids spring into view, wondrous ancient temples, strings of camels wending their way through the desert—ever picturesque and supercilious—deigning to bear their burden. There is the snake-charmer, with his hideous hooded cobras, with which he plays as with a blindworm; the sellers of all kinds of oddments of local manufacture, and there is, of course, everywhere the artist with the *antikas* from the tombs—which he has spent the past summer in making. Then, as the steamer ploughs lazily along, the inter-village life of the banks is revealed in a series of old-world tableaux—the quaint native houses that seem to have retained to-day the form of the days of the Pharaohs; the date groves with their cool shade and great clusters of tawny fruit gleaming through the palm leaves; and the waving fields of tall green dhura—all

combine to make a marvellous setting for the human and animal life that animates each picture. You watch the bronze figure of the man working the shâdûf, which he has done since the time of the Pharaohs, and perhaps mentally compare his bucketful with the huge mass of water so successfully engineered into security by the dam at Aswân which soon you will see. You listen to the sleepy, gentle groan of the water-wheel turned by the old gâmûs with its huge bulkiness, slate-coloured skin, and ridiculous blue eyes. Presently the sun begins to set; palms and camels make silhouettes against the sky. Soon a lovely glow spreads over all, giving beautiful tints and lights and shades, which in turn give place to deep shadows and a mysterious haze disappearing in the distance into deep blue. So night comes quickly, and the stars hang like great jewels low in the sky.

Detailed information as to fares and other particulars will be found in Messrs. Cook's Nile programme, published annually, and obtainable gratis at any of their offices. The voyage from Cairo to Aswân and back occupies three weeks, and from Aswân to Wâdî Ḥalfah and back (see p. 351) one week.

DAILY ITINERARY OF THE TWENTY DAYS VOYAGE BY MESSRS. COOK'S TOURIST STEAMERS.

(Cairo to Aswân and back.)

1st Day.—Leave Cairo on Tuesday at 10 a.m. from the landing stage above the Ḳaṣr an-Nîl Bridge (p. 172). From **Badrashên** a desert excursion on donkeys is made to **Ancient Memphis** and the **Necropolis of Ṣaḳḳârah** (p. 208 *ff.*). Steamer proceeds in the evening to **Al-'Ayât** (p. 351), 36 miles from Cairo.

2nd Day.—Steamer to Maghâghah (106 miles), passing the Pyramid of **Mêdûm**, **Al-Wasṭah** and **Bani-Suwêf** (p. 353 *ff.*).

3rd Day.—Steam to **Bani-Ḥasan**. Visit the **Speos Artemidos** and the tombs of **Ȧmeni-Ȧmenemḥat** and **Khnemuḥetep** (p. 357 *ff.*). Thence to Rôḍah (182 miles) (p. 361).

4th Day.—Steam to **Asyûṭ** (250 miles). Visit the town, rock-tombs and Barrage. Splendid view of the Nile Valley (p. 365 *ff.*).

5th Day.—Steam to **Suhâk** (318 miles) (p. 367)

6th Day.—Steam past **Balyanah** (Abydos is visited on the return journey) through the passes of Abu Shûshah to Dishnah (388 miles) (p. 378 *ff.*).

7th Day.—Steam to **Denderah** and visit the **Temple of Hathor,** afterwards steaming to **Luxor,** which is reached about sunset (450 miles) (p. 378 *ff.*).

8th–10th Days.—At Luxor, visiting **Thebes, Karnak, Temple of Luxor, Tombs of the Kings, Temple of Dêr-al-Baḥarî, Rameseum, the Colossi, Temple of Madînat Habû,** etc. (p. 384 *ff.*).

11th Day.—Steam to **Asnâ** (Isnâ or Esneh) (488 miles) and **Edfu** (516 miles), visit the Temples at each (p. 476–485).

12th Day.—Steam through the gorge of **Silsilah** (p. 486) to **Kôm Ombo** (556 miles) where the temple is visited (p. 486). Thence to **Aswân** (583 miles) arriving there after lunch, visit the **Island of Elephantine** with its Nilometer and Museum before dinner (p. 489 *ff.*).

13th and 14th Days.—At Aswân visiting the town, bâzârs, the rock-tombs, the Island of **Philæ**, the Great Dam (pp. 83 *ff.*, 504).

15th Day.—Leave Aswân on the return voyage and steam to **Luxor.**

16th Day.—Travellers who wish to re-visit Karnak, etc., may do so without extra charge. The steamer leaves Luxor at noon and proceeds as far as **Nag' Ḥamâdî,** which is reached in the evening (p. 378).

17th Day.—Steam to **Balyanah**, visit **Abydos** (p. 371 *ff.*).

18th Day.—Steam to **Asyûṭ**, arriving in the afternoon.

19th Day.—The steamer proceeds as far as **Gabal aṭ-Ṭêr,** where it anchors for the night.

20th Day.—Arrive at Cairo.

For passengers by train from Cairo, regular communication is maintained between Aswân and Wâdî Ḥalfah by the stern-wheel express steamers of the Sûdân Government, which perform the double journey in about 64 hours. Travellers who wish to inspect the temples and ruined sites of Nubia may make the voyage more leisurely by the Tourist Steamers, which occupy a week on the double journey and afford facilities for visiting the ruins.




COOK'S MAP
OF
THE NILE
FROM CAIRO TO KENEH
Scale of English Miles
L I B Y A N
D E S E R T
A R A B I A N
D E S E R T
GULF OF SUEZ
A R A B I A N
D E S E R T
L I B Y A N
D E S E R T
31 Long. East of Greenwich
32
Cairo
Suez
Port Ibrahim
Beni Suef
Minyeh
Assiut
Sohag
Keneh
Medinet el Fayum
Birket el Kerun

DAILY ITINERARY OF MESSRS. COOK'S TOURIST STEAMER SERVICE BETWEEN ASWÂN (SHALLÂL) AND WÂDI ḤALFAH.

1st Day.—Leave **Aswân** (Shallâl) at 9.10 a.m., passing **Dabôd, Ḳartassi,** and **Kalâbshah** (the temples are visited on the return journey), and halting at **Dandûr** and at **Garf Ḥusên** to visit those temples (pp. 516–521).

2nd Day.—Steam to **Sabû'a.** Visit the temple and the mounds of sixteen Sphinxes, and proceed to **'Amâdah** (ancient temple) and past Derr to **Ibrîm** in time for the wonderful View of Sunset from the Nile (pp. 525–528).

3rd Day.—Steam to **Abu Simbel.** Visit the Great Temple of Rameses II (p. 530).

4th Day.—Steam to **Wâdî Ḥalfah** (p. 539), arriving about 1 p.m.

5th Day.—Visit **Abu Ṣîr** (magnificent view of the northern end of the **Second Cataract),** the village of Tawfiḳîyah and its bâzârs (pp. 539–541).

6th Day.—Return from **Wâdî Ḥalfah,** steam to **Gabal Addah** and visit the rock temple (p. 537), thence to **Daḳḳah** (p. 521) or further north for the night.

7th Day.—Steam to **Kalâbshah.** Visit the temples (p. 517), and arrive at Shallâl in the afternoon.

I.—CAIRO TO LUXOR BY RAILWAY.

The journey from Cairo to Aswân, if the traveller be disposed to proceed thither direct, occupies between 22 and 23 hours; the distance from Cairo to Luxor is 420, and from Luxor to Aswân is 130 miles. The ordinary gauge is used from Cairo to Luxor, and a narrower gauge from Luxor to Aswân; this necessitates change of carriage at Luxor.

After leaving Cairo the first station passed is **Gîzah,** with 18,714 inhabitants, the capital of the province of that name; the next station is **Ḥawâmdîyah,** with 7,688 inhabitants. **Badrashên,** at mile 14, with 7,947 inhabitants, is the stopping place for visitors to Ṣaḳḳârah; having passed **Maz'ûnah,** with 2,370 inhabitants, the little village of **Al-'Ayâṭ,** with 3,182 inhabitants, is reached at mile 31. Near the village of **Matânîyah,** with 3,738 inhabitants, are the **Pyramids of Lisht,** where Amenemḥat I and Usertsen I, kings of the XIIth dynasty, built their tombs. In 1908–14 the officials of

the Metropolitan Museum of New York carried out a series of important excavations on the pyramid-field of Lisht. They excavated the northern pyramids, that of **Usertsen I**, and the tomb of I-em-ḥetep, High Priest of Hermopolis. Among their spoil was a foundation deposit of Usertsen I, two wooden statues of the king (each 2 feet high), one wearing the crown of the north and the other the crown of the south, and a wooden shrine containing a model of the symbol associated with Osiris, namely the pied bull's skin, headless, attached to a rod inserted in a funerary vase. Round about the southern pyramid, that of **Ȧmenemḥat I**, they discovered several tombs of the Ancient Empire, and obtained from them many objects of interest.

The next station is **Kafr 'Ammar,** with 6,702 inhabitants, at mile 46. **Riḳḳah,** with 2,971 inhabitants, the next station, is the stopping place for visitors to the **Pyramid** and Maṣṭabah tombs of **Mêdûm.** In the winter of 1909–10 Professor Petrie excavated a number of tombs at **Mêdûm**, which he describes as follows :—

"The mound over the tomb No. 17 was mined through to a depth of "45 feet. At the bottom was found a closed stone building, which had "been completely buried beneath the mound, without leaving any external "opening. The burial had, therefore, taken place before the mound was "thrown up, and as the material of the mound was clearly from the "mason's waste left in building the pyramid adjacent, the burial must "have been made before the date of the Pyramid of Sneferu, 4650 B.C. "This was the earliest private stone tomb that could be dated. The "passages were lofty, and the great chamber was roofed with beams of "stone which weighed up to 40 tons each. In a recess at the end of the "hall stood the sarcophagus of red granite, the oldest stone sarcophagus "known. The burial was of the greatest interest, as it showed that the "body was completely unfleshed before it was wrapped in linen. The "bones had been completely stripped and severed, excepting that the "spine was not dissevered. Each bone was then wrapped separately in "fine linen, the spine was packed closely with linen, and linen was "pressed into the empty eye sockets. The skull, which was found with "the rest of the bones, as compared with the usual Egyptian heads, was "large, with narrow face, extremely orthognathous, and very narrow nose. "The neighbouring tomb of the noble Nefer-maat was the largest of all, "the size being 380 feet by 206 feet. The body of it was of Nile mud. "A pit 34 feet square had been sunk in the rock, 5 feet of mud had been "poured into it and left to harden, then the stone chamber had been "built upon that, and heaped over and around with large blocks of stone. "This arrangement was unique, as also was the inlaid colour decoration "of the tomb-chapel. The burial of Nefer-maat again proved to have "been an unfleshed skeleton. It was in bad condition, as the last work-"man before closing the chamber had rifled the body and broken up the "wooden coffin."

The pyramid of Mêdûm, called by the Arabs *Al-Haram al-Kiddâb*, or "the **False Pyramid**," is so named because it is unlike any of the other pyramids known to them; it was probably built by **Seneferu**, (hieroglyphs), the first king of the IVth dynasty, for the name of this king is found at various places in and about it. The pyramid is about 115 feet high, and consists of three stages; the first is 70, the second 20, and the third about 25 feet high. The stone for this building was brought from the Muḳaṭṭam Hills, but it was never finished; as in all other pyramids, the entrance is on the north side. When opened in modern times the sarcophagus chamber was found empty, and it would seem that this pyramid had been entered and rifled in ancient days. It was opened by Professor Maspero in 1881, and 10 years later was examined by Professor Petrie. On the north of this pyramid are a number of maṣṭabahs in which "royal relatives" of Seneferu are buried; the most interesting of these are the tombs of Nefermaāt, one of his feudal chiefs ((hieroglyphs) erpā hā), and of Atet his widow. The reliefs and paintings in the tomb of Rā-ḥetep are very good. The sculptures and general style of the work are similar to those found in the maṣṭabahs of Ṣaḳḳârah.

Opposite Riḳḳah, across the Nile, is Atfiḥ, with 10,221 inhabitants, which marks the site of the ancient Egyptian city of Tep-âḥet, the **Aphroditopolis** of the Greeks, who regarded it as one of the chief cities of the Heptanomis.* The deity of the town was a form of Hathor, incarnate in a cow. In the mountains to the east of the town St. Anthony the Great, the founder of Christian asceticism, was born at Coma, A.D. 250; he died in 355, aged 105 years. About mile 57, **Al-Wasṭah,** with 3,388 inhabitants, is reached, and passengers for the Fayyûm change here (*see* pp. 241–245).

The Fayyûm.—The stations on the line to Madînat al-Fayyûm are **Sêlah,**† with 10,258 inhabitants, 13·4 kilometres from Madînat al-Fayyûm; **'Adwah,** with 5,987 inhabitants, 7·7 kilometres from Madînat al-Fayyûm; and **Al-Maṣlûb,** with

* *I.e.*, Middle Egypt, or the district that lies between Egypt and the Thebaïd. The seven nomes in it were Memphites, Herakleopolites, Crocodilopolites, Aphroditopolites, Oxyrhynchites, Cynopolites, Hermopolites.

† For an account of the Pyramid of Sêlah and its examination by Dr. Borchardt in 1898, *see Annales du Service*, Cairo, 1900, p. 211.

2,785 inhabitants, 4 kilometres from **Madînat al-Fayyûm,** the capital of the Province of the Fayyûm, with 44,400 inhabitants, 129·3 kilometres from Cairo. The main line runs on to Al-Mandarah, with 2,017 inhabitants, and then to **Sinarû,** with 8,433 inhabitants, 11·3 kilometres from the capital; the branch to **Biyamû,** with 2,918 inhabitants, then to the terminus, **Sannures,** with 18,852 inhabitants, 12 kilometres from Madînat al-Fayyûm. Mr. H. W. Seton-Karr made excavations in the western district and discovered, a little to the north of the Fayyûm, the remains of a Neolithic settlement, and in the Province of the Fayyûm itself he found large numbers of flints belonging to the Neolithic Period. These include disks about 10 centm. in diameter, scrapers, like the Palæolithic "racloir," and two types peculiar to the Fayyûm. The first type is a rough, irregularly shaped flat knife, pointed at both ends, and the second is a round, or oval, flat knife, with a concave edge. (*Report*, *U.S. Nat. Hist. Museum*, 1904, pp. 745–751.)

Passing Bani-Ḥudêr, with 1,783 inhabitants; Ashmant, with 6,446 inhabitants; and Bûsh, with 13,842 inhabitants, we come, at mile 73, to **Bani Suwêf,** with 31,986 inhabitants; this town is the capital of the province bearing the same name, and is governed by a Mûdir. In ancient days it was famous for its textile fabrics, and supplied Akhmîm and other weaving cities of Upper Egypt with flax. A main road leads from this town to the Fayyûm. About 12 miles to the north of Bani Suwêf the **Baḥr Yûsuf** bends towards the east, and runs by the side of large mounds of ruins of houses, broken pottery, etc.; these mounds cover an area of 360 acres, and are commonly called Umm al-Kûmân, or "Mother of Heaps of dust," though the official name is Hanassîyah al-Madînah or **Ahnâs,** with 8,120 inhabitants. They mark the site of the great city which was called by the Egyptians [hieroglyphs], Ḥet-Ḥenesu from which the Jews made the name חָנֵּס, and the Copts ϩⲛⲏⲥ; the Greeks made this city the capital of the nome Herakleopolites, and called it **Herakleopolis.** No date can be assigned for the founding of the city, but it was certainly a famous place in the early empire, and in mythological texts great importance is ascribed to it. According to Manetho, the kings of the IXth and Xth dynasties were Herakleopolitans, but in the excavations which Messrs. Naville and Petrie

carried on at Hanassîyah, or Ahnâs, they found nothing there older than the XIIth dynasty. Travellers who wish to visit the famous Monastery of Saints Anthony and Paule, the first great Christian ascetics, near the Red Sea, usually set out on their road from the village of Biyâd al-Naṣâra (population 2,096), which lies to the east of the town. The Monastery is about 90 miles from the Nile and 20 from the Red Sea.

Passing **Bîbah**, with 12,642 inhabitants, we come to **Fashn,** with 13,953 inhabitants, near which are the ruins of the city of Ḥet-Bennu (Al-Ḥîbah, population 1,650), where the Phœnix was worshipped, and after **Fant,** with 5,909 inhabitants, we arrive at **Maghâghah,** with 10,480 inhabitants, 108 miles from Cairo. This town is now celebrated for its large sugar manufactory, which is lighted by gas, and is well worth a visit; the manufacturing of sugar begins here early in January.

About 24 miles farther south, lying inland, on the western side of the Nile, between the river and the Baḥr Yûsuf, is the site of the town of **Oxyrrhynchus,** so called by the Greeks on account of the fish which they believed was worshipped there. The Egyptian name of the town was Per-mātchet, whence the corrupt Arabic form **Behnesa,** with 2,961 inhabitants. The excavations made here by Messrs. Grenfell and Hunt have been attended with important results.

A little above Abû Girgâ, and near **Bani Mazar** (with 11,699 inhabitants), on the west bank of the Nile, is the town of Al-Ḳes (with 6,613 inhabitants), which marks the site of the ancient **Cynopolis** or "Dog-city"; it was the seat of a Coptic bishop. Thirteen miles from Abû Girgâ, also on the west bank of the Nile, and a few miles south of **Maṭâi,** an important railway junction (with 5,396 inhabitants), is the town of **Ḳulûssanâ,** with 7,320 inhabitants, 134 miles from Cairo, and a few miles south, lying inland, is **Samâlûṭ,** with 8,988 inhabitants. Farther south, on the east bank of the Nile, is **Gabal aṭ-Ṭêr,** or the "Bird mountain," so called because tradition says that all the birds of Egypt assemble here once a year, and that they leave behind them when departing one solitary bird that remains there until they return the following year to relieve him of his watch, and to set another in his place. As there are mountains called Gabal aṭ-Ṭêr in all parts of Arabic-speaking countries, because of the number of birds which frequent them, the story is only one which springs from the fertile Arab imagination. Gabal aṭ-Ṭêr rises above the river to a height

of 600 or 700 feet, and upon its summit stands a Coptic convent dedicated to Mary the Virgin, Dêr al-'Adhrâ, but commonly called **Dêr al-Baḳarah,** or the "Convent of the Pulley," because the ascent to the convent is generally made by a rope and pulley. Leaving the river and entering a fissure in the rocks, the traveller finds himself at the bottom of a natural shaft about 120 feet long. When Robert Curzon visited this convent, he had to climb up much in the same way as boys used to climb up inside chimneys. The convent stands about 400 feet from the top of the shaft, and is built of small square stones of Roman workmanship; the necessary repairs have, however, been made with mud or sun-dried brick. The outer walls of the enclosure form a square which measures about 200 feet each way; they are 20 feet high, and are perfectly unadorned. Tradition says that it was founded by the Empress Helena,* and there is in this case no reason to doubt it.

Minyâ, 153 miles from Cairo, with 34,945 inhabitants, on the west bank of the Nile, is the capital of the province of the same name, with 763,922 inhabitants; its Arabic name is derived from the Coptic Mone, which in turn represents the Egyptian *Ment.* There is a large sugar factory here, in which about 2,000 men are employed. From Minyâ an excursion can be made to Beni-Ḥasan in about a couple of hours. The tombs of Beni-Ḥasan lie on the east bank, and the traveller must use the ferry.

A few miles to the south of Minyâ are a number of tombs which were excavated by Mr. George Fraser in 1893; they are near the ancient site now called **Ṭahnah al-Gabal,** with 2,249 inhabitants. These tombs are *maṣṭăbahs* cut in the solid rock. In all the undisturbed burials Mr. Fraser found that the body was placed with the head to the north; it lay on its left side with the face to the east, the knees drawn up and the arms straight, and a dome of stones and mud was built over each body. In one of the tombs the cartouches of Userkaf and Men-kau-Rā were found. In 1903 MM. G. Lefébure and Barry excavated the temple of Ṭahnah which was, apparently, built in the reign of Nero. The hypostyle hall contained eight columns, and was built close to the mountain, and was approached by a ramp; in each wall was a door. The sanctuary consisted of four chambers hewn out of the rock; in the first was a rectangular well, or pit, which contained a

* Died about A.D. 328, aged 80. (Sozomen, *Eccles. Hist.*, ii, 2.)

black granite figure of Sekhmet, and in the fourth was an altar. The hypostyle hall is 20 metres long and 11½ metres wide; the sanctuary, or speos, which is probably an ancient tomb, is about 28 metres long. The ramp was 25 metres long and 7 metres wide, and had a row of statues on each side of it; half-way up was a terrace 11 metres long which extended to the right and left of the ramp.

A few miles south, on the eastern side of the river, is the village of **Zâwiyat al-Mêtîn,** or Zâwiyat al-Amwât (with 2,232 inhabitants), near which are the remains of some tombs of the VIth dynasty. They are the tombs of the nobles of the city of Ḥebenu, the capital of the XVIth nome of Upper Egypt.

Beni-Ḥasân-al-Ashrâf, 167 miles from Cairo, on the east bank of the Nile, is remarkable for the large collection of fine historical tombs which are situated at a short distance from the site of the villages known by this name. The villages of the "Children of Ḥasân" were destroyed by order of Muḥammad ʻAli, on account of the thievish propensities of their inhabitants. The **Speos Artemidos** is the first rock excavation visited here. This temple was built by Thothmes III and Ḥatshepsut; about 250 years later Seti I added his name to several of the half obliterated cartouches of Queen Ḥatshepsut, but it seems never to have been finished. The work of Seti I must have been very considerable, and his long inscription in the passage is of interest. The cavern was dedicated to the cat-goddess Pakhet, who was called Artemis by the Greeks; hence the name "cavern of Artemis." The Arabs call the cavern the "Stable of ʻAnṭar," a famous Muḥammadan hero.* The portico had originally two rows of columns, four in each; the cavern is about 21 feet square, and the niche in the wall at the end was probably intended to hold a statue of Pakhet.

The famous **Tombs of Beni-Ḥasân** are hewn out of the living rock, and are situated high up in the mountain; they are about 39 in number, and all open on a terrace, somewhat similar to the terrace outside the tombs at Aswân. Each tomb preserves the chief characteristics of the maṣṭăbahs of Ṣaḳḳârah, that is to say, it consists of a hall for offerings and a shaft

* ʻAnṭar was the son of Shaddâd al-Absi by an Abyssinian slave, and died about A.D. 615. He was a mighty warrior and performed many deeds of surpassing bravery during the 40 years which Muḥammad the Prophet spent in subduing the tribes. He was also a great poet and was the author of one of the Seven Muʻallaḳât, *i.e.*, the poems that were "suspended" at the gate of the Kaʻabah at Mecca (Makkah).

leading down to a corridor, which ends in the chamber containing the sarcophagus and the mummy. The tombs were hewn out of a thick layer of fine white limestone, and the walls were partly smoothed and then covered with a thin layer of plaster, upon which the scenes in the lives of the wealthy men who ordered them to be made might be painted. Lower down the hill are some scores of mummy pits, with small chambers attached, wherein, probably, the poorer class of people who lived near were buried. Of the 39 tombs at Beni-Ḥasân only 12 contain inscriptions, but it is clear from these that the men who made the necropolis there were well-born, independent, and almost feudal proprietors of the land in the neighbourhood, who filled various high offices in the city of Menāt-Khufu, which was situated not far off, and that they flourished during the XIth and XIIth dynasties. Of the 12 inscribed tombs, eight are of governors of the nome Meḥ, two are of princes of Menāt-Khufu, one is of the son of a prince, and one is of a royal scribe. The 39 tombs were divided by Lepsius into two groups, northern and southern; in the former are 13 and in the latter 26 tombs. Six of the inscribed tombs belong to the reigns of Ȧmenemḥat I, Usertsen I, and Usertsen II, and the other six were probably made during the rule of the kings of the XIth dynasty. The tombs of Beni-Ḥasân are extremely interesting, and the visitor should examine as many of them as possible, for as examples of XIIth dynasty work they are unrivalled.

No. 2. Tomb of Ȧmeni, [hieroglyphs], or Ȧmenemḥat [hieroglyphs]. Ȧmeni was the governor of the XVIth nome of Upper Egypt, called Meḥ by the Egyptians and Antinoë by the Greeks, and he flourished in the reign of Usertsen I. He was by birth the hereditary prince of the district, and he held the rank of "ḥa," or "duke," and the office of priest to various gods and goddesses; he seems to have combined in his own person the offices of almost every high state official in the nome. Architecturally his tomb is of great interest, and it is instructive to find examples of the use of octagonal and polyhedral pillars in the same tomb; the shrine is at the east end of the hall, and two shafts, which lead to mummy chambers below, are on one side of it. The inscriptions show that Ȧmeni was buried in the forty-third year of the reign of Usertsen I, on the fifteenth day of the second month of the Inundation, *i.e.*, about the end of May; the feudal lords of the nome seem to have had an epoch of their own by which to

reckon, for we are told that the forty-third year of Usertsen I was the equivalent of "year 25 of the nome of Meḥ."

No. 3. Tomb of Khnemu-ḥetep II. [hieroglyphs] Khnemu-ḥetep was the governor of the Eastern Mountains, *i.e.*, of the land on the eastern side of the nome of Meḥ as far as the Arabian mountains; and he flourished in the reign of Usertsen II. He was by birth the hereditary prince of the district, and he held the rank of "ḥa," or "duke," and the office of priest to various gods and goddesses. The scenes painted on the walls of this tomb are of great interest, and represent:—*West wall* (*over the doorway*) a shrine with a statue of the deceased being drawn to the tomb; (*south side*) carpenters, washers of clothes, boat-builders, potters, weavers, bakers, and others at work, and (*middle row*) the wives and family of Khnemu-ḥetep sailing in boats to Abydos; (*north side*) the storage and registration of grain, reaping, treading of corn, ploughing, gathering of grapes and other fruit, watering the garden, oxen fording a river, a fishing scene, and (*middle row*) the passage of the mummy of the deceased to Abydos. (*North wall*) Khnemu-ḥetep, armed with bow and arrows, and his sons hunting in the desert; with him went the scribe Menthu-ḥetep, who kept an account of the bag made. On the right is a large figure of Khnemu-ḥetep, who is accompanied by one of his sons, and by an attendant, and by three dogs, and the four lines of text above him state that he is inspecting his cattle and the produce of his lands. Of the four rows of figures before him, the first is perhaps the most important, for it illustrates a procession of foreign people who visited him in his capacity of governor of the nome.

The procession consists of 37 persons of the Āamu, a Semitic people or tribe, and they are introduced by Nefer-ḥetep, a royal scribe, who holds in his hand a papyrus roll, on which is inscribed "Year 6, under the majesty of Horus, the leader of "the world, the king of the South and North, Rā-Khā-Kheper "(*i.e.*, Usertsen II). List of the Āamu, brought by the son "of the Duke Khnemu-ḥetep, on account of the eye-paint, "Āamu of Shu; a list of 37 [persons]." Behind the scribe stands the official Khati, and behind him the Āamu chief, or desert shêkh; these are followed by the other members of the foreign tribe. The men of the Āamu wear beards and carry bows and arrows, and both men and women are dressed in garments of many colours. The home of the Āamu was situated to the east of Palestine. In this picture some have

seen a representation of the arrival of Jacob's sons in Egypt to buy corn, but there is no evidence for the support of this theory; others have identified the Āamu with the Hyksos. The company here seen are probably merchants who brought eye-paint, spices, and the like, from their own country, and sold their wares to the rich officials of Egypt. On the East and South Walls are series of scenes in which Khnemu-ḥetep is depicted hunting the hippopotamus, and snaring birds, and spearing fish, and receiving offerings.

No. 13. Tomb of Khnemu-ḥetep III, a royal scribe, the son of Neferu-ḥetep. This tomb consists of one small rectangular chamber with one mummy pit. The inscriptions record the name and titles of the deceased, and petitions to those who visit the tomb to pray that abundant offerings may be made to him. This is one of the oldest tombs at Beni-Ḥasân, and was probably made long before the site became a general burial-ground for the nobles of Menāt-Khufu.

No. 14. Tomb of Khnemu-ḥetep I, the governor of the nome of Meḥ, and prince of the town of Menāt-Khufu. His father's name and titles are unknown, and the rank of his mother, Baqet, is also unknown; his wife was called Satȧp, and his son Nekht succeeded to his rank, title, and dignities. He flourished during the reign of Amen-em-ḥat I. On the south-west wall of the main chamber of this tomb is an inscription which contains the cartouches of Åmen-em-ḥat I, and which states that Khnemu-ḥetep I went on an expedition with his king in boats to some country, probably to the south.

No. 15. Tomb of Baqet III, governor of the nome of Meḥ. Baqet held the rank of "ḥa," or "duke," and flourished before the rule of the kings of the XIIth dynasty. This tomb contains seven shafts leading to mummy chambers. The North Wall is ornamented with some interesting scenes in which men and women are seen engaged in various handicrafts and occupations, and the deceased is seen enjoying himself hunting in the desert, and fishing in the Nile. On the East Wall wrestling scenes are painted, and over 200 positions are illustrated; below these are illustrations of the events of a pitched battle. On the South Wall are scenes connected with the work on Baqet's estates, and pictures of men engaged in their work or amusements.

No. 17. Tomb of Khati, governor of the nome of Meḥ, and commandant of the Eastern Desert; the main chamber is crossed by two rows of three quatrefoil columns of the lotus-

bud type, and of these two remain perfect. Each column represents four lotus stems with unopened buds, tied together below the buds, and is brilliantly painted in red, blue, and yellow. This tomb contains two shafts leading to mummy chambers, and is decorated with a large number of scenes which have, however, much in common with those in the other tombs already described.

In December, 1902, Professor Garstang began a systematic excavation of the cemetery at Beni-Ḥasân, or at least of that portion of it which remained untouched by the Egypt Exploration Fund. By May, 1903, the number of tombs which he examined was about 500, and by March, 1904, this number had risen to 888. A description of certain typical tombs was published by him in *Annales du Service*, tom. v, p. 215 *ff.*, and a full account of his operations has now been published.

Rôḍah, with 9,483 inhabitants, 176 miles from Cairo, the seat of a large sugar manufactory, lies on the west bank of the river, just opposite **Shêkh 'Abâdah,** with 2,074 inhabitants, or **Antinoë,** a town built by Hadrian, and named by him after his favourite Antinous, a Bithynian youth, who was drowned (or drowned himself) here in the Nile. To the south of Antinoë lies the Coptic convent of **Abû Honnês,** *i.e.*, **Dêr Abu-Ḥinnis,** with 2,463 inhabitants, and in the districts in the immediate neighbourhood are the remains of several Coptic buildings which date back to the fourth century of our era. A little to the south-west of Rôḍah, lying inland, are the remains of the city of Hermopolis Magna, called in Egyptian *Khemennu*, in Coptic Shmûn, and in Arabic **Al-Ashmûnên,** with 9,828 inhabitants; the tradition which attributes the building of this city to Ashmûn, son of Miṣr, is worthless. The Greeks called it Hermopolis, because the Egyptians there worshipped Thoth, , the scribe of the gods, who was named by the Greeks Hermes. A little distance from the town is the spot where large numbers of the ibis, a bird sacred to Thoth, were buried.

About five miles south of Antinoë, and seven miles from Ashmûnên in a direct line across the Nile, on the north side of the rocky valley behind the modern Coptic village of **Dêr Al-Nakhlah,** or Dêrûṭ Umm-Nakhlah, with 4,559 inhabitants, is a very important group of ancient Egyptian tombs at the place called **Al-Barshah,** with 2,420 inhabitants.

The most interesting of these is the **Tomb of Teḥuti-ḥetep,** the chief of the XVth nome of Upper Egypt, who flourished during the reigns of Amen-em-ḥat II, Usertsen II, and Usertsen III, in the XIIth dynasty. The façade consists of two fine columns with palm-leaf capitals, supporting a massive architrave, all coloured pink, and marbled with pale green to represent rose granite; the ceiling is painted blue and studded with quatrefoils, and the walls were sculptured with hunting and other scenes. The main chamber measures 25 feet by 20 feet by 13½ feet, and on the upper part of the left-hand wall is the famous painting of the "Colossus on a Sledge," in which we see a huge alabaster statue of the deceased being dragged along by nearly 200 men. This statue, we are told in the inscriptions, was 13 cubits in height, *i.e.*, nearly 21 feet, and it must have weighed about 60 tons; the work of transporting this mass from the mountain many miles distant, where it was quarried, must have been enormous. Of Teḥuti-ḥetep's career little is known, but the wealth and position of the man are sufficiently indicated by the fact that he was able to undertake such a work. The tomb was discovered by Messrs. Mangles and Irby about August 26th, 1817.

Mallawî, with 24,963 inhabitants, 185 miles from Cairo, is situated on the west bank of the river; it is the Manlau of Coptic writers, and there were many Christian churches in the town, among others one dedicated to Abatir, one to Mercurius, one to St. George, one to Gabriel the Archangel, one to Raphael the Archangel, and two to the Virgin and to Michael the Archangel.

Passengers by rail alight at **Dêr Mawâs** (with 10,973 inhabitants) for **Ḥaggî Ḳandîl,** or Al-Ḥâgg Ḳandîl, with 1,250 inhabitants, or **Tall al-'Amârnah,** 195 miles from Cairo. It lies on the east bank of the river, about five miles from the ruins of the city built on both sides of the Nile by Khu(Åakhu)en-Åten, Amenophis IV, the famous "heretic" king of the XVIIIth dynasty, whose prenomen was Neferkheperu-Rā uā-en-Rā. Amenophis IV was the son of Amenophis III, by Ti, the daughter of Iuåa and Thuåu, whose tomb was discovered by Mr. T. M. Davis in 1905. When the young prince Amenophis IV grew up, it was found that he had conceived a rooted dislike to the worship of Åmen-Rā, the king of the gods and great lord of Thebes, and that he preferred the worship of the disk of the sun to that of Åmen-Rā; as a sign of his opinions he called himself "spirit of Åten," and "beloved of Aten" instead

of the usual and time-honoured "beloved of Åmen." In answer to the objections of the priesthood of Åmen, the king ordered the name of Åmen-Rā to be chiselled out of all the monuments, even from his father's names. Rebellion then broke out, and Khu-en-Åten thought it best to leave Thebes, and to found a new city for himself at a place between Memphis and Thebes, now called Tall al-'Amârnah. The position of the city on the right or east bank was about five miles long and three and a quarter broad, and the hills enclosed it in the form of a crescent. The boundaries of the city were marked by at least fourteen huge stelae; the greater number of these are on the east bank. The famous architect Bek, whose father Men served under Amenophis III, designed the temple buildings, and in a very short time a splendid town, with beautiful granite sculptures, sprang out of the desert. As an insult to the Thebans, the king built a sandstone and granite temple at Thebes in honour of the god Harmachis. When Khu-en-Åten's new town, Khut(Åakhut)-åten, "the spirit (?) of the sun's disk," was finished, his mother Ti came to live there; and here the king passed his life quietly with his mother, wife, and seven daughters. He performed all the duties of high priest of Åten, and offered up offerings of incense on the altar of the god. To him the solar disk (ÅTEN) was the visible symbol of the Almighty God its Creator, who was ONE. He died leaving no male issue, and each of the husbands of his daughters became king.

The length of the king's reign does not seem to have been more than 12 or 15 years, and certainly long before the reign of Rameses II the beautiful city which Khu-en-Åten built had been made to fall into ruins. Fortunately, however, the ruins are very instructive, and they allow visitors to follow its plan with success. In 1887 a number of important **cuneiform tablets** were found by a native woman near the palace, and most of these may be seen in the Museums of London, Berlin, and Cairo. They are inscribed with letters and despatches from kings of countries in and about Mesopotamia and from governors of cities in Palestine and Syria, and those from the last-named countries show that, whilst the heretic king was occupying himself with theological problems and artistic developments, his Empire was falling to pieces. Among the tombs of special interest are :—(*Northern Group*) No. 1. Tomb of **Pa-nehsi,** which seems to have been used as a church by the Copts; No. 2. Tomb of **Pentu,** inscribed with a hymn to

Åten ; No. 3. Tomb of **Meri-Rā,** which is probably the most characteristic of the period, with sacrificial scenes, hymns to Åten, plans of houses, and scenes of the crowning of officials ; No. 4. Tomb of **Åāḥmes,** with a hymn to Åten ; No. 5. Tomb of an unknown official which was being built when King Rā-sāa-ka came to the throne ; and No. 7, a tomb which mentions the receipt of tribute from vassal nations. The scenes and portraits in this tomb are of great interest. (*Southern Group.*) The Tomb of **Tutu,** with hymns to Aten ; and the Tomb of **Åi,** the successor of King Khu-en-Åten. The **Tomb of Khu-en-Åten** lies several miles away from the river, and it is chiefly interesting on account of the scenes ot sun-worship which are depicted in it.

Excavations.—In 1890–92 Professor Petrie excavated a large section of the city and the palace of Åmen-ḥetep, in which he uncovered some brightly painted plaster pavements. These very remarkable objects were wantonly destroyed by the natives in 1912, and very few fragments of them were preserved. In 1911–14 the Deutsche Orient-Gesellschaft carried out a series of excavations on the site and cleared out a number of wells and bathrooms, which were provided with sanitary accommodation. In other parts of the site workshops were found, and among the ruins inside them many small models, etc., were discovered. The architects attached to the expedition did excellent work in investigating the size of the site of the city of Amen-ḥetep IV, and Borchardt thinks that it was about five miles long and one mile broad. The excavators found evidence that the site had been occupied long before the "heretic King" built his city there, and it is a little doubtful if it became a ruin as soon after his death as is usually supposed. The Society published the results of a careful survey of the city on each side of the river in a map edited by Herr Paul Timme, which for clearness and fullness leaves nothing to be desired. The excavation of the site is beng carried on by Professor Peet for the Egypt Exploration Fund, and there is good reason to think that it will be exhaustive. The ancient cemeteries of Cusae lie in the neighbourhood of **Mîr** (population 7,216), some miles to the west, and many of the tombs of the Middle Empire are well worth visiting. In the tombs of the Roman Period many of the mummies were provided with painted plaster portrait busts, and many Greek papyri have been found in the coffins.

Gabal Abû Fêdah.—Seventeen miles south of Ḥaggî

Ḳandîl, 209 miles from Cairo, on the east side of the river, is the range of low mountains about 12 miles long known by this name. Passing **Dêrût ash-Sharîf** with 10,184 inhabitants, and **Bawît,** with 1,686 inhabitants, and **Nazâli Gânûb,** with 3,165 inhabitants, we come to **Al-Ḳuṣîyah** (with 11,212 inhabitants), which marks the site of the Greek city of **Cusae,** the Qes [hieroglyphs] of the hieroglyphic texts, and the capital of the XIVth nome of Upper Egypt. The name seems to mean, "the town of the mummy bandages." According to Ælian (H.A. x, 27), the goddess of the city was worshipped under the form of a white cow. Towards the southern end of this range there are some crocodile mummy pits.

Manfalûṭ, with 14,482 inhabitants, 220 miles from Cairo on the west bank of the Nile, occupies the site of an ancient Egyptian town. Leo Africanus says that the town was destroyed by the Romans, and adds that it was rebuilt under Muḥammadan rule. In his time he says that huge columns and buildings inscribed with hieroglyphs were still visible. The Coptic name Ma-en-balot, "place of the sack," is the original of its Arabic name to-day. Quite close on the east bank is **Ma'abdah** (population 7,986), in the hills of which was found a burial place full of mummies of **Crocodiles.** At **Dêr al-Gabrâwi** are many fine tombs of the VIth dynasty.

Asyûṭ,* 249½ miles from Cairo, with 51,431 inhabitants, is the capital of the province of the same name, and the seat of the Inspector-General of Upper Egypt; it stands on the site of the ancient Egyptian city called *Saut*, whence the Arabic name Siûṭ or Asyûṭ, and the Coptic Siôut. The Greeks called the city **Lycopolis,** or "wolf city," probably because the jackal-headed **Anubis** was worshipped there. In ancient Egyptian times the sacred name of the city was Per-Ȧnpu, and it formed the capital of the XVIIth or Anubis nome of Upper Egypt. Asyûṭ is a large city, with spacious bâzârs and fine mosques; it is famous for its red pottery, carved ivory figures and sticks, inlaid tables, boxes, Ḳur'ân stands, articles in leather, head-cloths, shawls worked with gold and silver, and strings of really beautiful round ivory beads, and for its market, to which wares from Arabia and Upper Egypt are brought. The **American Missionaries** have a large establishment, and the education of the natives is carried on here on a large scale. The Asyûṭ Training College was specially established

* An American Consular Agent is stationed here.

to provide and prepare workers to carry on the educational and evangelistic operations of the Evangelical community in Egypt, and nearly all the male teachers have been trained in it.*

The Arabic geographers describe Asyûṭ as a town of considerable size, beauty, and importance, and before the abandonment of the Sûdân by the Khedive all caravans from that region stopped there. In the hills to the west of the town are a number of ancient Egyptian tombs, which date back as far as the VIIIth dynasty. The most important of these is the Tomb of **Ḥeptchefa,** which is large and most interesting. The deceased was Viceroy of Nubia under Usertsen I, of the XIIth dynasty, and he died and was buried at Karmah, near the head of the Third Cataract. His tomb in Nubia was discovered by Dr. Reisner. Hence the tomb at Asyûṭ was never used by Ḥeptchefa. The tomb of **Khati**, who flourished under the IXth dynasty, and of **Tefȧb,** should be visited. The ancient history of the town is obscure. Events of great importance mythologically seem to have taken place here, and the importance which Asyûṭ possessed was rather religious than political. Christianity found a resting place here very soon after Anthony the Great began to teach Asceticism, and the large rock-hewn tombs in the hills to the west of the town became the abodes of great numbers of monks and solitaries. These fanatics destroyed the statues in the tombs and defaced the pictures of the gods on the walls, because in their heated imaginations they thought they were devils appearing to them. One of the most famous of the Christian teachers of this place was John, commonly known as John of Lycopolis, whose life is given us by Palladius. He is said to have declared to the Emperor Theodosius that he would conquer Maximus the rebel, and defeat Eugenius, both of which things took place. In 1912-13 Sa'îd Bey Khashabah, a native of Asyûṭ, excavated a considerable number of tombs at **Durunkah,** a village with 7,679 inhabitants. About a mile from the town he found many fine rectangular wooden sarcophagi of the period of the XIth and XIIth dynasties, and a few fine burials of the Christian period. The men buried in these tombs were nobles and officials of the town of Shas-ḥetep, which was about five miles from Durunkah, and is represented by the village of **Shuṭb** (with 5,236 inhabitants). From time immemorial the caravans

* *See* page 149. The history of the work which the Mission has carried on with such conspicuous success is modestly told by Dr. Andrew Watson in the "American Mission of Egypt, 1854–1896," Pittsburg, 1898.

for Dâr Fûr and Kordofân by the Darb al-Arba'în route have started at Asyûṭ. The town is beautifully situated on a fine wide plain, and the view of the Inundation here by moonlight is a thing never to be forgotten. The **Barrage at Asyûṭ** has already been described in a separate section of this work (*see* pp. 77 *ff*).

Fifteen miles farther south is the Coptic town of **Abu Tîg**, with 14,276 inhabitants. The name appears to mean "granary"; and 14½ miles beyond, 279 miles from Cairo, is **Ḳâu al-Kabîr** (the ⲦⲔⲰⲞⲨ of the Copts), on the east bank, which marks the site of **Antaeopolis**, the capital of the Antaeopolite nome in Upper Egypt. The temple which formerly existed here was dedicated to Antaeus, the Libyan wrestler, who fought with Hercules; he was the son of Poseidon and Ge, and was invincible as long as he remained in contact with his mother earth. The temple was built by Ptolemy Philometor and was repaired by Marcus Aurelius, and its ruins were finally submerged by the disastrous Nile-flood of 1821. In the plain close by it is said by Diodorus that the battle between Horus, the son of Osiris and Isis, and Set or Typhon, the murderer of Osiris, took place; Typhon was overcome, and fled away in the form of a crocodile. In Christian times Antaeopolis was the seat of a bishop.

Ṭahṭah, with 20,658 inhabitants, 291½ miles from Cairo, contains some interesting mosques, and is the home of a large number of Copts, in consequence of which, probably, the town is kept clean. **Sûhâḳ,** with 20,760 inhabitants, 317½ miles from Cairo, is the capital of the province of Girgâ; near it are the White and Red Monasteries. The Dêr al-Abyaḍ or "**White Monastery,**" so called because of the colour of the stone of which it is built, but better known by the name of Amba Shenûdah, is situated on the west bank of the river near Sûhâḳ, 317½ miles from Cairo. The convent was built by the Empress Helena, in the ancient Egyptian style. The walls slope inwards towards the summit, where they are crowned with a deep overhanging cornice. The building is of an oblong shape, about 200 feet in length by 90 feet wide, very well built of fine blocks of stone; it has no windows outside larger than loopholes, and these are at a great height from the ground. Of these there are 20 on the south side and nine at the east end. The monastery stands at the foot of the hill, on the edge of the Libyan desert, where the sand encroaches on the plain.

There were formerly six gates; the single entrance now remaining is called the "mule gate," because when a certain heathen princess came riding on a mule to desecrate the church, the earth opened and swallowed her up. The walls enclose a space measuring about 240 feet by 133 feet. The convent was dedicated to Shenûti, who was born A.D. 333; he died at midday on July 2nd, A.D. 451! The library once contained over a hundred parchment books, but these were destroyed by the Mamlûks when they last sacked the convent. In this monastery the bodies of St. Bartholomew and Simon the Canaanite are said to be buried, but the body of its founder was laid in the monastery which stood on the Mountain of Athribis, a name derived from the Egyptian Ḥet-erpiti.

The Dêr al-Aḥmar or **"Red Monastery,"** so called because of the red colour of the bricks of which it is built, was also built by the Empress Helena; it is smaller and better preserved than the White Monastery, and was dedicated to the Abba Bêsa, the disciple and friend of Shenûti. The pillars of both churches were taken from Athribis, which lay close by; the orientation of neither church is exact, for their axes point between north-east and north-east by east. The ruined church of Armant near Thebes is built on the same model. All lovers of Coptic buildings will be grateful to Lord Cromer for the promptitude which he showed in connection with the repairing of these monasteries, which contain the two most important churches in Egypt. Mr. Somers Clarke called attention to the ruined state of the monasteries, and very soon after Herz Bey, Architect to the Comité de Conservation, took steps to preserve the buildings and to clear out the squalid houses which had been built up within the walls. The Egyptian Government granted £E.4,000 for the work of restoration, and to this sum the Coptic Patriarch added £E.1,000.

A few miles south of Sûhâḳ, on the east bank of the river, lies the town of **Akhmîm,** with 26,023 inhabitants, called Panopolis by the Greeks; Strabo and Leo Africanus say that it was one of the most ancient cities of Egypt. The ithyphallic god Menu, identified by the Greeks with Pan, was worshipped here, and the town was famous for its linen weavers and stone cutters. Its Egyptian name was Åpu. Of this city Herodotus (ii, 91) says: "There is a large city called "Chemmis (*i.e.*, Panopolis), situate in the Thebaic district, "near Neapolis, in which is a quadrangular temple dedicated

"to Perseus the son of Danaë; palm-trees grow round it, and "the portico is of stone, very spacious, and over it are placed "two large stone statues. In this enclosure is a temple, and "in it is placed a statue of Perseus. The Chemmitae affirm "that Perseus has frequently appeared to them on earth, and "frequently within the temple, and that a sandal worn by him "is sometimes found, which is two cubits in length; and that "after its appearance, all Egypt flourishes. They adopt the "following Grecian customs in honour of Perseus: they cele- "brate gymnastic games, embracing every kind of contest; and "they give as prizes, cattle, cloaks, and skins. When I "enquired why Perseus appeared only to them, and why they "differed from the rest of the Egyptians in holding gymnastic "games, they answered, 'Perseus derived his origin from their "'city; for that Danaus and Lynceus, who were both natives "'of Chemmis, sailed from there into Greece'; and tracing the "descent down from them, they came to Perseus; and that "he coming to Egypt, for the same reason as the Greeks "allege, in order to bring away the Gorgon's head from Libya, "they affirmed that he came to them also and acknowledged "all his kindred; and that when he came to Egypt he was "well acquainted with the name of Chemmis, having heard it "from his mother; they add, that by his order they instituted "gymnastic games in honour of him." Akhmîm is still famous for its linen weavers, who seem to have inherited the skill of their predecessors in making many-coloured woven fabrics. The city is also famous as the birthplace of Nonnus, the poet, A.D. 410, and as the burial place of Nestorius, A.D. 450. This wretched man was banished first to Petra, in Arabia, and then to the Oasis of Khârgah in 435; he was seized by the Blemmyes and carried off, but eventually found his way to Panopolis. He was again banished and tortured by sufferings and privations, and at length died of a disease in the course of which his tongue was eaten by worms; his religious opponents declared that rain never fell on his tomb. In former days Akhmîm had a large population of Copts, and large Coptic monasteries stood close by. The Necropolis of Akhmîm was discovered by M. Maspero in 1882–3.

Al-Manshâh, or **Al-Manshîyah**, on the west bank of the river, with 21,652 inhabitants, $328\frac{1}{2}$ miles from Cairo, stands on the site of a city which is said to have been the capital of the Panopolite nome; its Coptic name was Psôi. In the time of Shenûti the Blemmyes, a nomad warlike Ethiopian tribe,

invaded Upper Egypt, and having acquired much booty, they returned to Psôi or Al-Manshâh, and settled down there. Close to the village of **Al-Aḥâiwah,** which is almost opposite to **Al-Manshîyah** on the west bank, are the remains of cemeteries of the Predynastic Period. In the quarries of Gabal Tûkh close by are many inscriptions in Greek and Demotic of the Græco-Roman Period. **Girgâ,** with 21,652 inhabitants, on the west bank of the river, 341½ miles from Cairo, has a large Christian population, and is said to occupy the site of the ancient This, whence sprang the first dynasty of historical Egyptian kings. But it is far more probable that the site of This is marked by the modern village of **Al-Birbâ** (with 3,309 inhabitants), about half-an-hour's ride from Girgâ. **A Tomb of Tcheser,** a king of the IIIrd dynasty (excavated by Prof. Garstang in 1901), lies a few miles to the west of Girgâ.

During the years 1901–3 the Hearst Egyptian Expedition carried out the excavation of a series of cemeteries situated at **Naga' 'ad-Dêr,** nearly opposite Girgâ. Dr. Reisner found near the promontory on which stands the ruined tomb of Shêkh Faraḳ three ravines, which served as burial places for the Egyptians from the Predynastic Period to a very late date. As the result of his investigations of these he has formulated the following theories: That from the predynastic times to those of the third and following dynasties the burial customs of the Egyptians remained unchanged. On the other hand the differences between the things placed in the graves, and in the construction of the tombs, are very great. The tombs of the early dynasties contain the products of technical skill, *i.e.*, bored and engraved stones, which are never found in graves of the early Predynastic Period. On the other hand, chipped or worked flints, hand-made pottery, plaited reed work, etc., similar to those found in predynastic graves, still occur. The differences between the people of the predynastic graves and those of the early dynasties depend on two mechanical inventions, viz., stone boring and writing, and on the spread of a third invention, copper working. "It is, I believe, impossible "to escape the conclusion that the inhabitants of Egypt from "the earliest Predynastic Period down to the end of Proto-"dynastic Period, form one continuous race and that we are here "witnesses of the steps by which they conquered the stubborn "materials of the earth and earned that civilization which we "call Egyptian." And again: "The invention of copper working "is Egyptian; the invention of the stone borer is Egyptian; and

" the invention of the hieroglyphic system of writing is Egyptian." As regards the chronology of the Predynastic Period he finds " that the length of time indicated by the size of the pre-" dynastic cemeteries and by the changes introduced during the " course of the burials cannot possibly carry us beyond 4500 " [B.C.] for the earliest predynastic grave known. In fact, it is " extremely doubtful if the earliest known grave is earlier than " 4000 B.C. In any case, 4200 B.C. was a period of undoubted " barbarism, the nearest approach to the Neolithic which we " have in Egypt."

A few miles further on is **Al-Balyanâ** البليانا, with 9,599 inhabitants, where travellers who intend to visit Abydos, about 7 miles distant, usually start.

The temples of Seti I and Rameses II at Abydos.

Abydos,* in Egyptian [hieroglyphs], Abṭu, Arabic **'Arâbat al-Madfûnah**, with 10,604 inhabitants, on the west bank of the Nile, was one of the most renowned cities of ancient Egypt; it was famous as the chief seat of the worship of Osiris in Upper Egypt, and the principal sanctuary of this god was here. But before the priests of Osiris established themselves here, two great local gods were worshipped here, viz., Ån-ḥer [hieroglyphs], and Khenti-Åmenti [hieroglyphs]. In very early times Osiris absorbed the attributes of the latter, and his priests called him Khenti-Åmenti, *i.e.*, " Prince of Åmenti," (the kingdom of the dead in the Ṭuat or Other World). The town itself was dedicated to Osiris, and the temple in it, wherein the most solemn ceremonies connected with the worship of this god were celebrated, was more reverenced than any other in the land. Tradition declared that the head of Osiris was preserved at Abydos, and the name of the coffer which held his head became the name of the town. The town and its necropolis were built side by side, and the custom usually followed by the Egyptians in burying their dead away from the town in the mountains was not followed in this case. The town of Abydos, a small town even in its best time, was built upon a narrow tongue of land situated between the canal, which lies inland some few miles, and the desert, and owed its importance solely to the position it held as a religious centre; from this point of view it was the second city in Egypt. The necropolis of Abydos is not much older than the VIth dynasty,

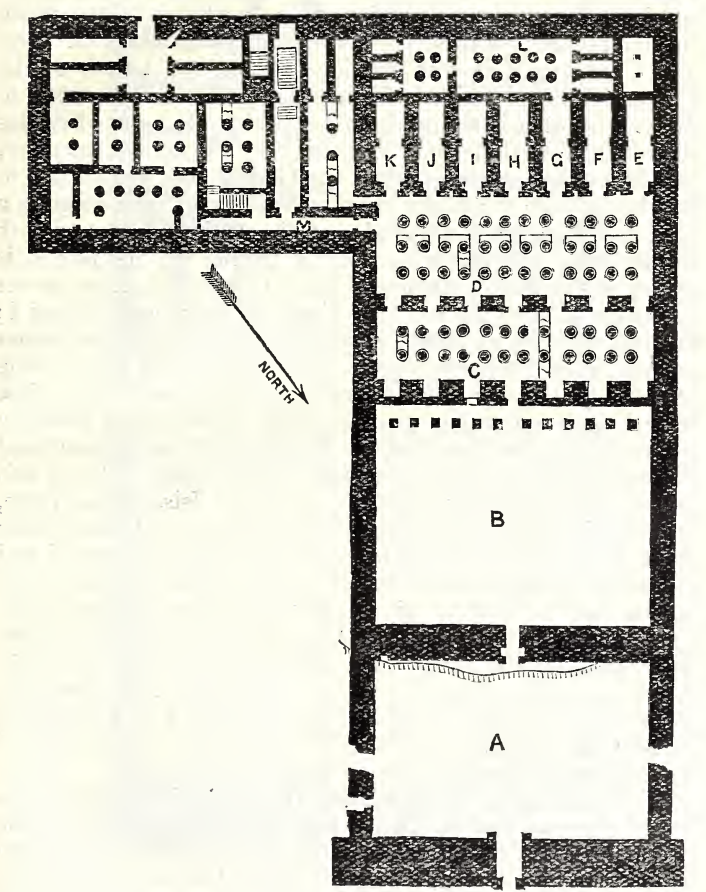
* In ancient times the name was pronounced Abȳdos, and not Abўdos.

and the tombs found there belonging to this period are of the maṣṭăbah class. During the XIth and XIIth dynasties the tombs took the form of small pyramids, which were generally built of brick, and the ancient rectangular form of tomb was revived during the XVIIIth dynasty. Abydos attained its greatest splendour under the monarchs of the XIth and XIIth dynasties, and though its plain was used as a burial ground so late as Roman times, it became of little or no account so early as the time of Psammetichus I. It has often been assumed that the town of Abydos is to be identified with This, the home of Menes, the first historical king of Egypt; the evidence derived from the exhaustive excavations made by M. Mariette does not support this assumption. The oldest tombs at Abydos lie close to the Temple of Rameses II, and those of a later period further to the north-west, and a little to the north of the **Shûnat az-Zabîb.** The latest tombs occupy the level ground on the north and west of the Temple of Seti I. The oldest town of Abydos lay still further to the north, and it was here that the oldest temple of Osiris was built, probably quite early in the Dynastic Period.

Plutarch says that wealthy inhabitants of Egypt were often brought to Abydos to be buried near the mummy of Osiris, and curiously enough, the tombs close to certain parts of the temple of Osiris are more carefully executed than those elsewhere. Of Abydos Strabo says (Bk. xvii, cap. i, sec. 42): "Above this city (Ptolemaïs) is "Abydos, where is the palace of Memnon, constructed in a "singular manner, entirely of stone, and after the plan of the "Labyrinth, which we have described, but not composed of "many parts. It has a fountain situated at a great depth. "There is a descent to it through an arched passage built "with single stones of remarkable size and workmanship. "There is a canal which leads to this place from the great "river. About the canal is a grove of Egyptian acanthus, "dedicated to Apollo. Abydos seems once to have been a "large city, second to Thebes. At present it is a small town. "But if, as they say, Memnon is called Ismandes by the "Egyptians, the Labyrinth might be a Memnonium, and the "work of the same person who constructed those at Abydos "and at Thebes; for in those places, it is said, are some "Memnonia. At Abydos Osiris is worshipped; but in the "temple of Osiris no singer, nor player on the pipe, nor on "the cithara, is permitted to perform at the commencement

"of the ceremonies celebrated in honour of the god, as is "usual in rites celebrated in honour of the gods" (Bk. xvii, 1, 44, Falconer's translation). The principal monuments which were brought to light by the excavations of M. Mariette at Abydos are :—

1. The **Temple of Seti I,** better known as the **Mem-**



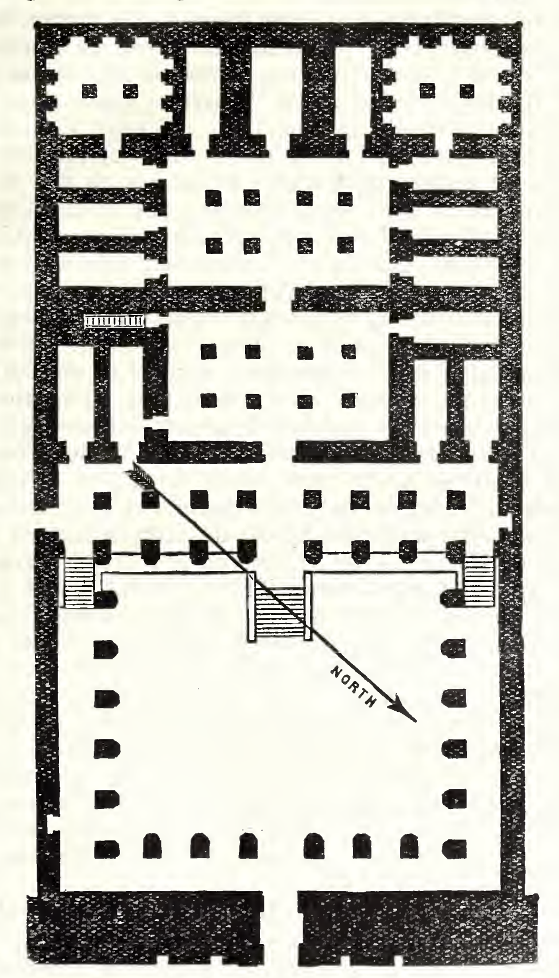
Plan of the Temple of Seti I at Abydos (Mariette).

nonium; it is built of fine white calcareous stone upon an artificial foundation made of stone, earth, and sand, which

has been laid upon a sloping piece of land; it was called Menmaāt-Rā, after the prenomen of its builder. The Phœnician *graffiti* show that the temple must have ceased to be used at a comparatively early period. It would seem that it was nearly finished when Seti I died, and that his son Rameses II only added the pillars in front and the decoration. Its exterior consists of two courts, A and B, the wall which divides them, and the façade; all these parts were built by Rameses II. The pillars are inscribed with religious scenes and figures of the king and the god Osiris. On the large wall to the south of the central door is an inscription in which Rameses II relates all that he has done for the honour of his father's memory, how he erected statues of him at Thebes and Memphis, and how he built up the sacred doors. At the end of it he gives a brief sketch of his childhood, and the various grades of rank and dignities which he held. In the interior the first hall, C, is mainly of the time of Rameses II, but it is possible to see under the rough hieroglyphics of this king the finer ones of Seti I; this hall contains 24 pillars, arranged in two rows. The scenes on the walls represent figures of the gods and of the king offering to them, the names of the nomes, etc., etc. The second hall, D, is larger than the first, the style and finish of the sculptures are very fine, the hieroglyphics are in relief, and it contains 36 columns, arranged in three rows. From this hall seven short naves dedicated to Horus, Isis, Osiris, Ȧmen, Harmachis, Ptaḥ, and Seti I respectively, lead into seven vaulted chambers, E, F, G, H, I, J, K, beautifully shaped and decorated, which are dedicated to the same beings. The scenes on the walls of six of these chambers represent the ceremonies which the king was supposed to perform in them daily; those in the seventh refer to the apotheosis of the king. At the end of chamber G is a door which leads into the sanctuary of Osiris, L, and in the corridor M is the famous **Tablet of Abydos,** which gives the names of 76 kings of Egypt, beginning with Menes and ending with Seti I.

2. The **Temple of Rameses II;** it was dedicated by this king to the god Osiris; it lies a little to the north of the temple of Seti I. Many distinguished scholars thought that this was the famous shrine which all Egypt adored, but the excavations made there by M. Mariette proved that it was not. It would seem that during the French occupation of Egypt in the early part of the last century this temple stood almost intact; since that time, however, so much damage has been wrought upon it, that

the portions of wall which now remain are only about 8 or 9 feet high. The fragment of the second Tablet of Abydos,



Plan of the Temple of Rameses II at Abydos.

now in the British Museum, came from this temple. The few scenes and fragments of inscriptions which remain are interesting, but not important. A little to the north of the temple of

Rameses II is a Coptic monastery, the church of which is dedicated to Amba Musas.

The **excavations** that have been made during the last thirty years have been productive of important results. In 1896 M. de Morgan discovered a number of remarkable tombs of the Neolithic Period at **Al-'Amrah,** about three miles to the east of Abydos. In 1895, 1896, and 1897 M. Amélineau excavated the tombs of a number of kings of the first three dynasties at **Umm al-Ḳa'âb,** which lies to the west of the necropolis of the Middle Empire, and in the course of his work at Abydos he also discovered a **shrine** which the ancient Egyptians placed on a spot where they seem to have believed that the god Osiris was buried, or at any rate where some traditions declared he was laid. In the winter of 1899–1900 Professor Petrie also carried on excavations on M. Amélineau's old sites at Abydos, and recovered a number of objects of the same class as those found by M. Amélineau. The true value and general historical position of the antiquities which were found at Abydos by M. Amélineau and M. de Morgan, as well as of those which were found by M. de Morgan at Naḳâdah and Abydos, and by Professor Petrie at Ballas and Tûkh, were first indicated by M. de Morgan himself in his volumes of *Recherches sur les Origines de l'Égypte*, Paris, 1896 and 1897. The royal names ṬEN, ATCHAB, and SMERKHAT, discovered by M. de Morgan, were tentatively identified with the kings of the Ist dynasty who are usually called Ḥesepti, Merbapen, and Semen-Ptaḥ, by Herr Sethe in the *Aegyptische Zeitschrift*, Bd. 35, p. 1 *ff.*, 1897. M. Jéquier identified PERABSEN with Neter-baiu, a king of the IInd dynasty, and Professor Petrie identified QĀ with the king of the Ist dynasty who is usually called Qebḥ. The identifications of ĀḤĀ with Menes, and NARMER with Tetá, and TCHA with Ateth, and MER-NIT with Ata, kings of the Ist dynasty, at present need further evidence. Some of these are more probably predynastic kings.

In 1908–9 Professor **Naville** and the late Mr. **Ayrton** continued excavations at Abydos on behalf of the Egypt Exploration Fund. During the winters of 1909–10 and 1910–11 Professor Naville, assisted by Messrs. Peet, Dixon, Hall, and Legge, carried out excavations on behalf of the Egypt Exploration Fund in the Royal Tombs at Abydos, and in a cemetery, which he calls the "mixed cemetery," situated near the edge of the desert. Among other

important things found was a potsherd bearing the name of a king similar to that of Smerkhat, and a fragment of a crystal vase. The latter once bore the name of Merpeba, but this has been rubbed off, and the name of another king Ḥu, or Nekht, or Semempses as Professor Naville suggests, cut in its place. In front of this are the signs [hieroglyphs], which have been usually read *Semti* and believed to form a name of King Ṭen, but Professor Naville thinks this is now doubtful; this doubt is shared by Messrs. Weill and Legge, and the latter believes that the tomb of Ṭen belongs to a later period than the Ist dynasty, to which it has been generally assigned. Professor Naville first cleared the square on the north side of the tomb of Ṭen and east of the tomb of King Khent, where in 1897 M. Amélineau discovered the famous **Cenotaph** of Osiris. Certainly at one period of Egyptian history the tomb of Khent was regarded by the Egyptians as the veritable tomb of Osiris. In the course of the work a very large number of pots were found, the presence of which cannot be explained; in the desert sand were found hundreds of coarse earthenware cups or tumblers, which had never been used. Amélineau's theory is confirmed by the finding of six mud figures of Osiris, two of which had strings of blue glazed beads round the neck. Mr. Legge cleared the tomb of Perâbsen, and found several clay sealings. In the "mixed cemetery" were found tombs of true Egyptian character, tombs of pre-dynastic character, and tombs with characteristics partaking of both. In the winter of 1910–11 Professor Naville and Mr. Peet continued their excavations at Abydos, and they found there what Professor Naville believes to be the famous **well** described by Strabo. This well was, as M. Lefébure has shown, believed to be the true entrance to the Other World, or Kingdom of Osiris, and into it were thrown all the offerings made to the god. These were said to be carried by some underground passage to the spot where Osiris sat enthroned by the side of, or on, the celestial waters which formed the source of the Nile in this world. We hope that excavations will be continued on this site, for, being the traditional home of the cult of Osiris, it is tolerably certain that sooner or later important ancient remains will be discovered. A large part of the site, however, still remains to be excavated, and it may be asserted confidently that the clearing of it will occupy several excavators for many years.

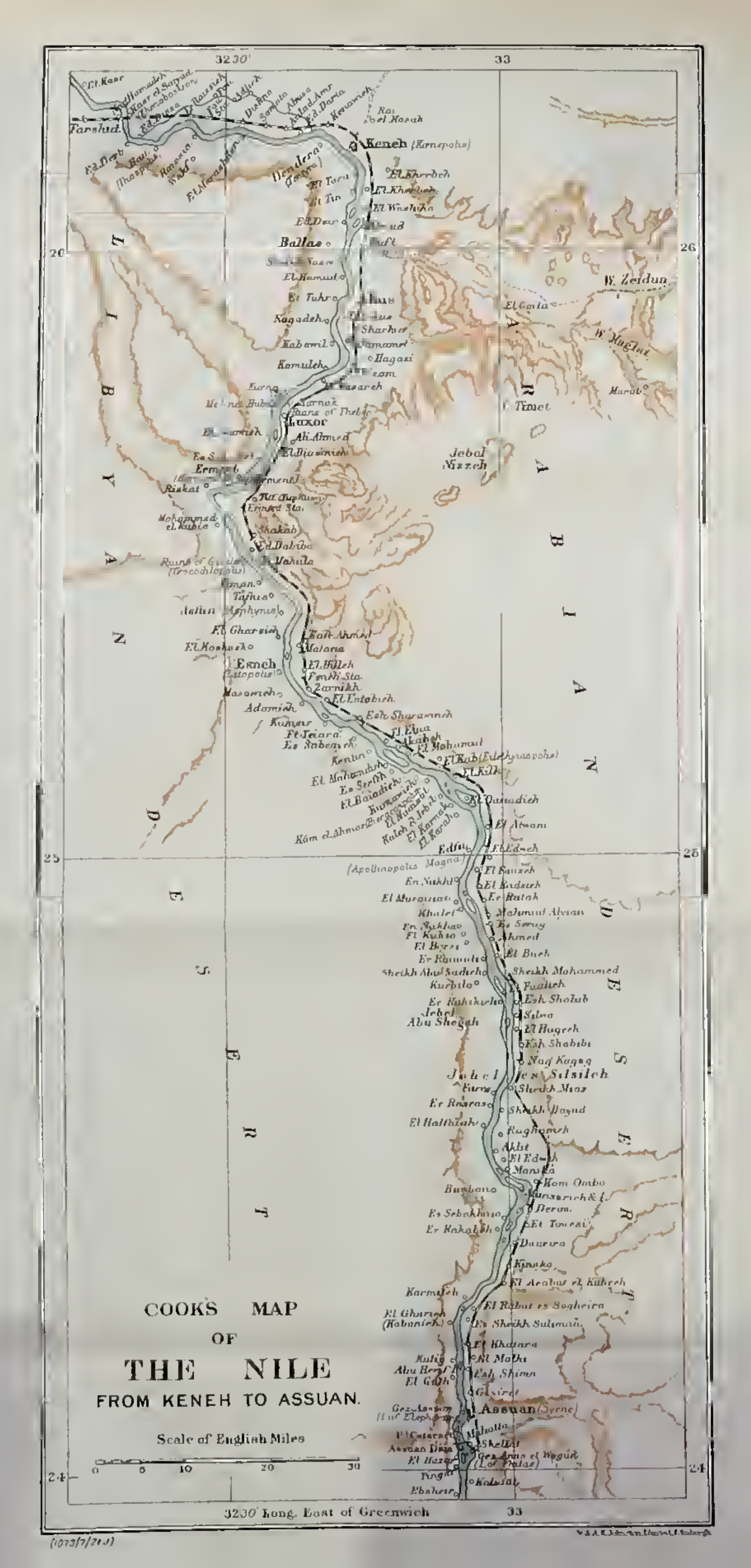
The next station reached is **Abû Tisht**, with 2,751 inhabitants, and the next **Farshût**, with 17,237 inhabitants, 368 miles from Cairo, on the west bank of the river. Between Abû Tisht and Farshût is Muwaṣlat al-Khârgah, or **Khârgah Junction**, where the traveller starts for the **Great Oasis.** The narrow-gauge railway (2 feet 6 inches) is seen on the right-hand side of the main line on going south. At **Nag' Ḥamâdî**, with 5,047 inhabitants, 373 miles from Cairo, is the iron **railway bridge**, 1,362 feet in length, across the Nile.

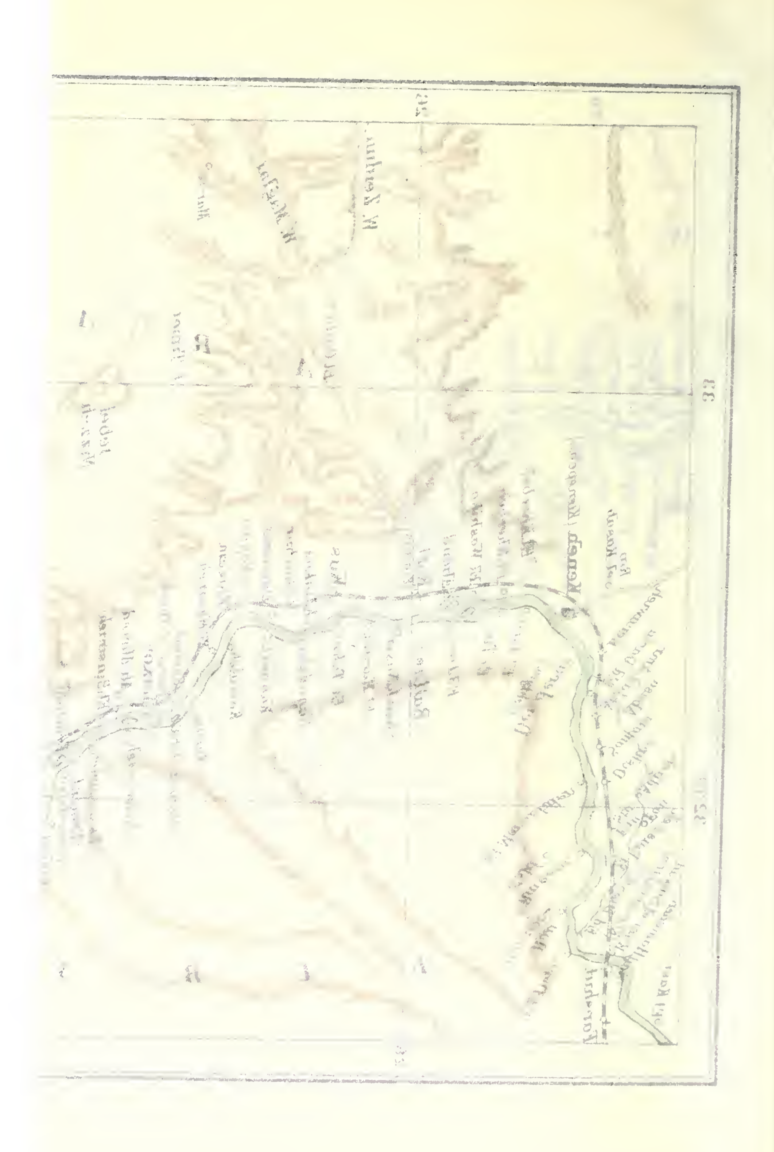
Ḳaṣr aṣ-Ṣayyâd, or "the hunter's castle," with 11,118 inhabitants, 376 miles from Cairo, on the east bank of the river, marks the site of the ancient **Chenoboskion**, *i.e.*, the "Goose-pen," or place where geese were kept in large numbers and fattened for market. The Copts call the town Shenesêt, which is probably a corruption of some old Egyptian name, meaning the place where geese were fattened. The town is famous in Coptic annals as the place where Pachomius (he died about A.D. 349, aged 57 years) embraced Christianity, and a few miles to the south of it stood the great monastery of Tabenna, which he founded. In the neighbourhood are a number of interesting tombs of the Early Empire. Passing the stations at **Al-Ḍab'îh**, and **Fâw Ḳiblî**, with 11,346 inhabitants, at mile 387 from Cairo **Dishna**, with 11,443 inhabitants, is reached.

Ḳanâ (locally called "Ginâ"), with about 22,958 inhabitants, 405½ miles from Cairo, on the east bank of the river, is the capital of the province of the same name. This city is famous for its dates and the trade which it carries on in the porous ware drinking bottles, which are made here in myriads. The Arabic name for this kind of bottle is "ḳullah," قُلَّة, which is commonly called gullah; its plural is either *ḳulal*, or *ḳilâl*, قُلَل, or قِلَال.

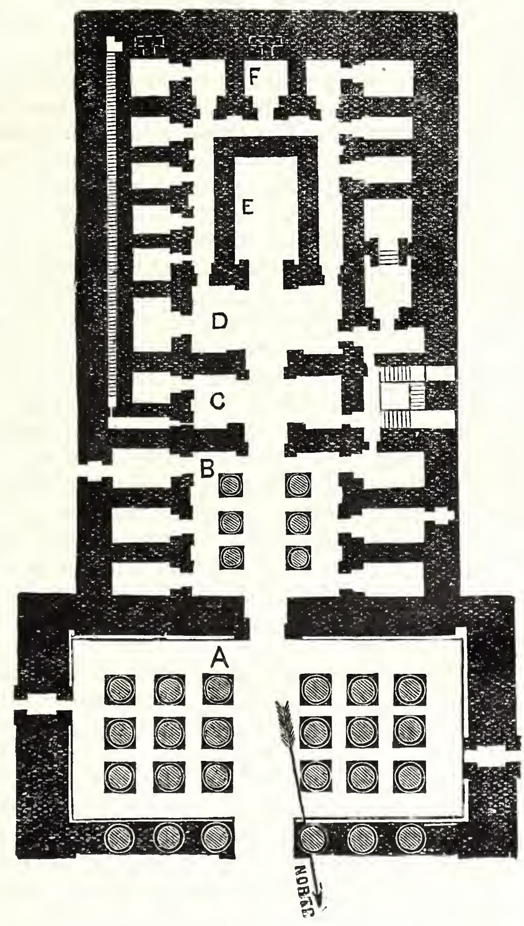
Denderah.

A short distance from the river, on the west bank, a little to the north of the village of Denderah, stands the **Temple of Denderah,** which marks the site of the classical Tentyra or Tentyris, where the goddess Hathor was worshipped. During the Middle Empire great quantities of flax and linen fabrics were produced at Tentyra, and it gained some reputation thereby.


COOKS MAP
OF
THE NILE
FROM KENEH TO ASSUAN.
Scale of English Miles
0
5
10
20
30
32°30' long. East of Greenwich
33
26
25
24
Keneh
Ballas
Luxor
Erment
Esneh
Edfu
(Apollinopolis Magna)
Kom Ombo
Assuan (Syene)
Jebel Nizzeh
W. Zeidun
L I B Y A N
D E S E R T
A R A B I A N
D E S E R T
(1073/7/21 J)



In very ancient times Khufu, or Cheops, a king of the IVth dynasty, founded a temple here, but it seems never to have become of much importance, probably because it lay so



Plan of the Temple at Denderah.

close to the famous shrines of Abydos and Thebes. The wonderfully preserved temple now standing there is probably but little older than the beginning of our era; indeed, it cannot,

in any case, be older than the time of the later Ptolemies: hence it must be considered as the architectural product of a time when the ancient Egyptian traditions of sculpture were already dead and nearly forgotten. It is, however, a majestic monument, and worthy of careful examination. Strabo says (Bk. xvii, ch. i, 44) of this town and its inhabitants: "Next to "Abydos is . . . the city Tentyra, where the crocodile is held "in peculiar abhorrence, and is regarded as the most odious of "all animals. For the other Egyptians, although acquainted with "its mischievous disposition, and hostility towards the human "race, yet worship it, and abstain from doing it harm. But the "people of Tentyra track and destroy it in every way. Some, "however, as they say of the Psyllians of Cyrenæa, possess a "certain natural antipathy to snakes, and the people of Tentyra "have the same dislike to crocodiles, yet they suffer no injury "from them, but dive and cross the river when no other person "ventures to do so. When crocodiles were brought to Rome to "be exhibited, they were attended by some of the Tentyritæ. "A reservoir was made for them with a sort of stage on one of "the sides, to form a basking place for them on coming out of "the water, and these persons went into the water, drew them in "a net to the place where they might sun themselves and be "exhibited, and then dragged them back again to the reservoir. "The people of Tentyra worship Venus. At the back of the "fane of Venus is a temple of Isis; then follow what are called "Typhoneia, and the canal leading to Coptos, a city common "both to the Egyptians and Arabians." (Falconer's translation.)

On the walls and on various other parts of the temples are the names of several of the Roman Emperors; the famous portraits of Cleopatra and Cæsarion her son are on the end wall of the exterior. Passing along a dromos for about 250 feet the portico, A, supported by 24 Hathor-headed columns, arranged in six rows, is reached. Leaving this hall by the doorway facing the entrance, the visitor arrives in a second hall, B, having six Hathor-headed columns and three small chambers on each side. The chambers held the priestly apparel and stores of the temple. The two chambers, C and D, have smaller chambers on the right and left, E was the sanctuary, and in F the emblem of the god worshipped in the temple was placed. From a room on each side of C a staircase led up to the roof. On the ceiling of the portico is the famous "**Zodiac,**" which was thought to have been made in

ancient Egyptian times; the Greek inscription written in the twenty-first year of Tiberius = A.D. 35, and the names of the Roman Emperors, have clearly proved that, like that at Asnâ, it belongs to the Roman time. The Zodiac from Denderah, now at Paris, was cut out, with the permission of Muḥammad 'Ali, in 1821, from the small temple of Osiris, generally called the "Temple on the Roof." The **Iseium** is situated to the south of the temple of Hathor, and consists of three chambers and a corridor; near by is a pylon which was dedicated to Isis in the thirty-first year of Cæsar Augustus. The **Mammisi**, or birth-house, was built by Augustus; this is the dwelling where the goddess was supposed to have brought forth the third person of the triad which was adored in the temple close by. The **Typhonium** stands to the north of the Temple of Hathor, and was so named because the god Bes, , figures of whom occur on its walls, was confused with Typhon; it measures about 120 feet by 60 feet, and is surrounded by a peristyle of 22 columns. If time permits, the **Crypts** should be visited, for the late Ptolemaïc bas-reliefs are of interest.

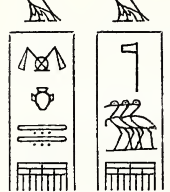
Travellers who intend to visit the ancient Ports of Myos-Hormos and Leukos Limen (Ḳuṣêr) and Berenice, nowadays set out on their journey from Ḳanâ. A brief description of the routes will be found at the end of Part IV of this book (p. 630 *ff.*).

A few miles beyond Denderah, on the east bank of the river, lies the town of **Kufṭ**, the *Qebt* of the hieroglyphics, and Keft of the Copts, with 10,858 inhabitants; it was the principal city in the Coptites nome, and was the Thebaïs Secunda of the Itineraries. From Kufṭ the road which crossed the desert to Berenice on the Red Sea started, and the merchandise which passed through the town from the east, and the stone from the famous porphyry quarries in the Eastern Desert, must have made it wealthy and important. It held the position of a port on the Nile for merchandise from a very early period; and there is no doubt that every Egyptian king who sent expeditions to Punt, and the countries round about, found Kufṭ most usefully situated for this purpose. A temple dedicated to the ithyphallic god Menu, Isis, and Osiris, stood here. It was nearly destroyed by Diocletian A.D. 292. A copy of a medical papyrus in the British Museum states that the work was originally discovered at Coptos during the time of Cheops,

a king of the IVth dynasty; thus it is certain that the Egyptians considered this city to be of very old foundation.

Early in the year 1910 MM. Weill and A. J. Reinach carried out the excavation of a portion of the ruins of the ancient city of Coptos. In the course of their work they uncovered the remains of two or three Egyptian temples, and cleared out the ruins of two Coptic churches, and they discovered a number of objects of very considerable interest. Among these may be specially mentioned a stele of Pepi I sculptured with a figure of the king adoring the god of Coptos, Menu, and with a figure of his mother, Aptu, whose name appears for the first time; two stelæ of Pepi II; a stele of king Uatch(?)-ka-Rā, whose Horus name was Temṭ-àb-taui (No. 1), and who may have been one of the immediate successors of Pepi II, the last king of the VIth dynasty; a stele of Nefer kau-Ḥeru, whose Horus name was Neter-baiu (No. 2), and who may also have been one of the immediate successors of Pepi II. These stelæ prove that the authority of the last kings of the VIth dynasty was as effective in Coptos as in their capital, Memphis.

No. 1. No. 2.



Besides these things remains were found of a temple o Usertsen II, a temple of Thothmes III, which was restored by the Ptolemies and several of the Roman Emperors. The labours of Weill and Reinach, taken with the results obtained by other workers, prove beyond all doubt that Coptos was a very important town in early dynastic times, and that its oldest god was Menu, who was probably worshipped there in the Predynastic Period. It owed its importance entirely to its position on the great caravan route between the east and the west, and its importance grew with the development of the routes from Coptos to the Red Sea ports, first, by the Pharaohs, and next by the Ptolemies and Roman Emperors. These excavations form a valuable supplement to those of Professor Petrie in 1903. **Ḳûṣ**, with 15,045 inhabitants, 425 miles from Cairo, on the east bank of the Nile, marks the site of the city called Apollinopolis Parva by the Greeks, and Qeset by the Egyptians. On the west bank, opposite Ḳûṣ, Prof. Petrie excavated a mass

of ruins that lay close to the modern village of **Ṭûkh,** and found that they covered the ruins of a temple dedicated to Set, the principal of Evil, probably of a very early period. The particular form of Set which was the object of worship in this temple was that of Set of Nubt, or Ombos. In the mountains near Ḳûṣ are a large number of tombs which were "usurped" by wealthy and important Greeks during the Ptolemaïc and Roman Periods. From these much jewellery of a massive kind has been brought by the natives in recent years, and if the reports current about the treasures to be found in these tombs be true, the whole site would well repay excavation. Large necklaces, formed of Roman gold coins, have also been found. To the west of the city stood the monastery of St. Pisentius, who flourished in the seventh century, and the well of water which is said to have been visited by our Lord and the Virgin Mary and Joseph. The Copts built numbers of churches in the neighbourhood. **Naḳâdah,** with 9,208 inhabitants, chiefly Copts, 428 miles from Cairo, on the west bank of the river, nearly opposite the island of Maṭarah, was the home of a large number of Copts in early Christian times, and several monasteries were situated there. The four which now remain are dedicated to the Cross, St. Michael, St. Victor, and St. George respectively, and tradition says that they were founded by the Empress Helena; the most important of them is that of St. Michael. In 1897 M. de Morgan carried on some important excavations here, and discovered a large number of prehistoric tombs, and the tomb of a king called Āḥa, who has, by some, been identified with Menȧ, the first king of the Ist dynasty. Professor Petrie also made excavations here as well as at **Ballâs.** Behind the village of **Khizâm,** or **Khuzâm,** with 4,483 inhabitants, are cemeteries belonging to the Predynastic Period and to the XIth dynasty. A considerable number of figures of women and animals, and a seated youth with his head bowed over his knees, all made of mud, were found at Khizâm and are now in the British Museum. At **Luxor,** with 15,439 inhabitants, 450 miles from Cairo, the railway gauge is altered, and the travellers to the South by railway must change carriages.

II.—LUXOR, THE TEMPLES AND TOMBS OF THEBES.

LUXOR.

Cook's Office, near Winter Palace Hotel.

Hotels.—Winter Palace Hotel, Luxor Hotel.

Central Post Office in street leading to Railway Station; there are also Post Offices in the Luxor Winter Palace and Luxor Hotels.

Telegraph Office near Luxor Hotel.

Churches.—English, in the grounds of the Luxor Hotel; Sunday services, 10.30 a.m. and 6 p.m. **Roman Catholic,** on the road to Karnak.

Excursions to Karnak, Tombs of the Kings, etc.; the Colossi of Åmen-ḥetep III (Memnon), Dêr al-Baḥari, etc.

Luxor, 450 miles from Cairo, on the east bank of the river, is a small town with 15,439 inhabitants (9,676 being Muslims, and 5,753 being Christians), and owes its importance to the fact that it is situated close to the ruins of the temples of the ancient city of Thebes. The name of Luxor is a corruption of the Arabic name of the place, El-Uḳṣûr, which means "the palaces."

Little more than 35 years ago Luxor was nothing more than a cluster of poorly built mud-houses, which stood close to the edge of the river bank, and inside the various courts of the Temple of Luxor. The village, as we may call it, was ill-kept and ill-scavenged, its alleys were unlit at nights, and it was not in a prosperous condition. In 1886 a great change came over the place, for, owing to the enterprise of **Messrs. Thos. Cook and Son,** British tourists began to come to Upper Egypt in comparatively large numbers, and prosperity for the town followed in their train. In December of that year Messrs. Thos. Cook and Son inaugurated a new line of steamers which ran at regular intervals from Cairo to Aswân and back. The advent of these steamers on the Nile marked a new era in the history of river travel in Egypt, and the late **Mr. John M. Cook,** who superintended their journeys personally, and devoted much time and care to every detail of their management, was the first to undertake the transformation of the dusty village of Luxor into a town suitable for European travellers to live in. He first caused steps to be built up the bank, the convenience of which the natives were not slow to perceive, and he improved the river front, and induced the local authorities to clean the streets and alleys, and to remove the stones which blocked the ways. He first enlarged and then rebuilt the old Luxor Hotel, and inaugurated improvements everywhere.

Gradually the streets were widened, and as the trade which followed in the wake of his steamers grew, the natives began to build better houses for themselves, and European wares began to fill the bâzârs. Quite early in the history of the modern development of Luxor, Mr. Cook founded a **hospital**, and hundreds of the sick and suffering gladly and promptly availed themselves of the medical assistance which he provided gratis. In this, as in many other things too numerous to mention, his sound advice, shrewd business capacity, and ready generosity, laid the foundation of the prosperity which has subsequently come to Luxor. He encouraged the natives to learn new methods, and quietly and unostentatiously supported struggling local undertakings until they were established, and the trade which he enabled the natives to do with his steamers literally "made" scores of villages on both banks of the river. The great organizer of the tourist traffic of Egypt was well called the "friend of the poor," and the "father of Luxor."

The excavation of the Temple of Luxor was begun by Prof. Maspero in 1883, and continued with conspicuous success by M. de Morgan. The houses inside the temple were pulled down, the road along the river front was widened, and the quay built, and several improvements were made at both ends of Luxor. The sacred lake of the temple of Mut, which had degenerated into a mere stagnant pool, was filled up, to the great benefit of the community. The advent of the railway from Cairo led to the introduction of carriages, and these have brought about a great improvement in the roads to Karnak and in those which traverse the town itself. The resultant of the forces of civilization which have been brought to bear on Luxor during the last few years is a clean, well-kept town, and the waste of time, fatigue, and annoyance which used to accompany a prolonged series of visits to the temples on each side of the river are now things of the past. Nowhere in Egypt can time more profitably or more comfortably be spent than at Luxor. In recent years much has been done to improve the town by the natives themselves, and many of the new houses are substantial and comfortable dwellings. In the year 1906 a new and handsome mosque was built and dedicated to the service of Almighty God by a native of the town, Al-Ḥagg Muḥammad Muḥassib Mûsa Ash-Shairî, who is descended from one of the Ashrâf or "nobles" of Mekka, who settled at Luxor in the fourteenth century, when Abû

Ḥagâg, the builder of the old mosque, which stood in one of the temple courts, came to the town. The building stands in the heart of Luxor, and is 59 feet long, 52 feet wide, and 23 feet high; the height of the minaret is about 122 feet. The roof is supported by six columns of hard stone from Akhmîm, and has six windows, three on the north side, two on the west side, and one on the south side; there are doors on the west, north, and south sides. Within the mosque is a Ḥanafîyah, and the decoration is of a partly Muslim and partly ancient Egyptian character. Over the main door is the inscription in Arabic: "In the Name of God, the "Merciful, the Compassionate! Say: May God pray for the "Apostle of God, and give him peace. He who buildeth for "God a house of worship shall the face of God, the Most "High, follow, and God shall build for him therein a "house of Paradise. Al-Ḥagg Muḥammad Muḥassib Mûsa "Ash-Shairî founded this House of Assembly in the year of "the Hijra 1323." Provision has been made for a garden, and in 1921, the buildings of the mosque being finished, the founder and endower of the mosque handed over to its keepers a series of alms-houses, worth several thousands of pounds, for the benefit of the deserving destitute of Luxor.

In connexion with the **American Mission** at Luxor may be mentioned the **Boarding School for Girls.** This new and commodious school, which stands on the right-hand side of the road to Karnak, was opened to receive boarders and day pupils on 24th February, 1905.

History of Thebes.—Ancient Thebes stood on both sides of the Nile, and was generally called in hieroglyphics Uast; that part of the city which was situated on the east bank of the river, and included the temples of Karnak and Luxor, appears to have been called [hieroglyphs] Åpti, whence the Coptic ⲦⲀⲠⲈ and the name Thebes have been derived. The cuneiform inscriptions and Hebrew Scriptures call it No, *i.e.*, Nut, "the City" (Ezek. xxx, 14), and No-Amon,* *i.e.*, Nut-Åmen, "City of Amen" (Nahum iii, 8), and the Greek and Roman writers Diospolis Magna. It is certainly one of the oldest cities of Egypt, but its founder is unknown; some say that, like Memphis, it was founded by Menes, and others

* In Egyptian, [hieroglyphs], *Nut-Amen.*

that it was a colony from Memphis. The proof of this statement is supplied by the splendid results of the excavations which were made between 1901 and 1917 by M. George Legrain, who died suddenly in 1917. During the course of his work M. Legrain discovered that the temple of Karnak of the XVIIIth dynasty stood upon the remains of one of the XIth and XIIth dynasties, and that this in turn covered the site of a temple which existed under the SECOND DYNASTY, which probably stood upon the ruins of a sanctuary of some god who was worshipped there in the Predynastic Period. In short, M. Legrain added nearly 2,000 years to the life-history of the city of Thebes. It is certain, however, that it did not become a city of the first importance until after the decay of Memphis, and as the progress of Egyptian civilization was, in the Dynastic Period, from north to south, this is only what was to be expected.

The spot on which ancient Thebes stood is so admirably adapted for the site of a great city that it would have been impossible for the Egyptians to overlook it. The mountains on the east and west sides of the river sweep away from it, and leave a broad plain on each bank of several square miles in extent. It has been calculated that modern Paris could stand on this space of ground. We have, unfortunately, no Egyptian description of Thebes, or any statement as to its size; it may, however, be assumed, from the remains of its buildings which still exist, that the descriptions of the city as given by Strabo and Diodorus are on the whole trustworthy. The fame of the greatness of Thebes had reached the Greeks of Homer's age, and its "hundred gates" and 20,000 war chariots are referred to in Iliad IX, 381. The epoch in the history of Thebes best known to us begins with the XIIth dynasty, but the city did not reach its highest point of splendour until the rule of the XVIIIth and XIXth dynasties over Egypt; as, little by little, the local god Åmen-Rā became the great god of all Egypt, so his dwelling-place Thebes gained in importance and splendour. The property and wealth of the god were almost incalculable, both as regards their extent and variety; his slaves numbered literally many tens of thousands, and to all intents and purposes the priesthood of Åmen-Rā governed the country. The attempt of Åmen-ḥetep IV to overthrow the worship of Åmen-Rā failed because the downfall of the god and his priests would have caused the dissolution of the

established order of things, and wrecked society. The decline of Thebes set in immediately after the death of Rameses III, 1200 B.C., and the priests of Ȧmen-Rā were the chief instruments that ruined the splendour and power of Thebes. Little by little they usurped the power of the weak kings of the XXth dynasty, and at length the high priest of Ȧmen proclaimed himself king. The government of Egypt became theocratic, and the arrogance of the priests, and their ignorance of military matters and statecraft, involved themselves and Upper Egypt in ruin. They succeeded for a time in making Thebes the centre of an independent state, but Shishak, a descendant of the old Libyan Chief Buiuwawa, broke their power and made himself king of all Egypt. The Ethiopians under Piānkhi conquered Egypt about 750 B.C., and they in turn were dispossessed by the Assyrian kings Esarhaddon and Ashurbanipal in the first half of the seventh century B.C. The latter marched up the Nile to Thebes, and looted it and carried off from it great spoil. The Persians, under Cambyses, conquered it and found very little to carry away. Under the Ptolemies and Romans Thebes rebelled thrice, but the Thebans were conquered and reduced to semi-slavery. When Christianity established itself in Egypt much destruction was wrought at Thebes by the Christians on both sides of the river, for although they turned parts of the temples into churches, they smashed the statues of the gods and the figures in the tombs, and defaced both reliefs and pictures. The infiltration of the water of the Nile undermined many of the great buildings, and walls, towers and pillars fell down. The marvel is that so much of Thebes of the hundred gates still remains to be seen. The city suffered severely at the hands of Cambyses, who left nothing in it unburnt that fire would consume. Herodotus appears never to have visited Thebes, and the account he gives of it is not satisfactory; the account of Diodorus, who saw it about 57 B.C., is as follows:—

"Afterwards reigned Busiris, and eight of his posterity after "him; the last of which (of the same name with the first) built that "great city which the Egyptians call Diospolis, the Greeks Thebes; "it was in circuit 140 stades (about twelve miles), adorned with "stately public buildings, magnificent temples, and rich donations "and revenues to admiration; and he built all the private houses, "some four, some five stories high. And to sum up all in a word, "he made it not only the most beautiful and stateliest city of Egypt, "but of all others in the world. The fame therefore of the riches "and grandeur of this city was so noised abroad in every place. "that the poet Homer takes notice of it:

"'Nor Thebes so much renown'd,
"'Whose courts with unexhausted wealth abound,
"'Where through a hundred gates with marble arch
"'To battle twenty thousand chariots march.'

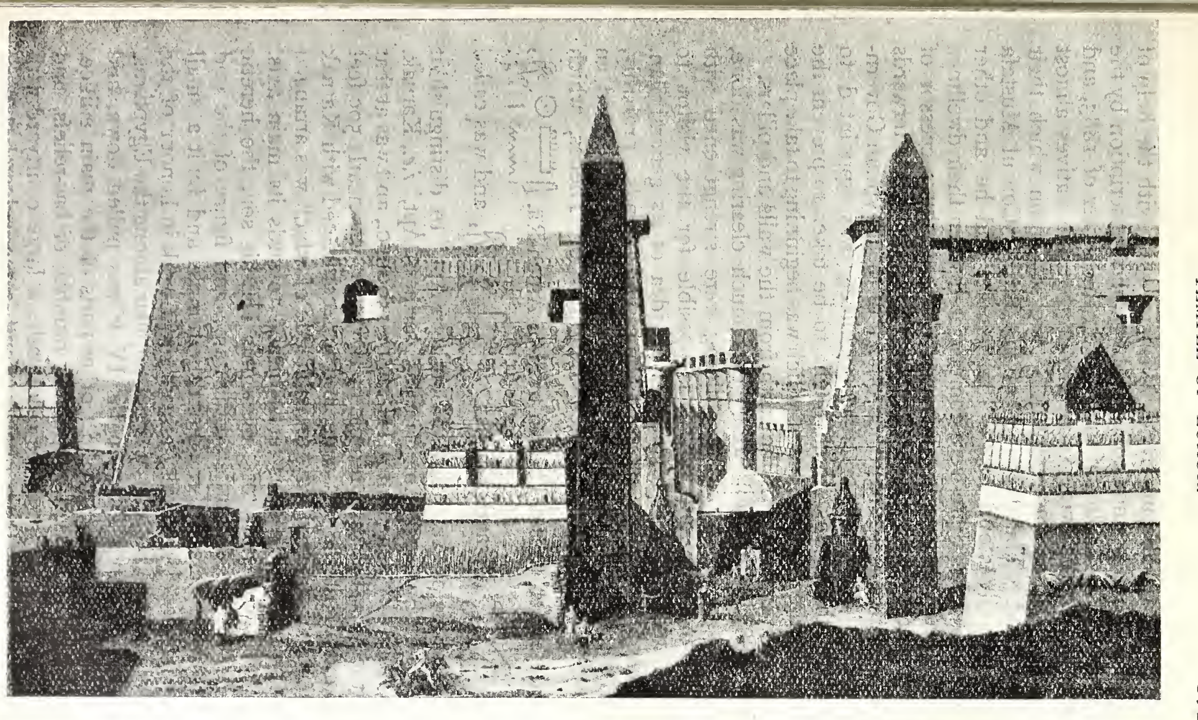
"Although there are some that say it had not a hundred gates; but "that there were many large porches to the temples, whence the city "was called *Hecatompylus*, a hundred gates, for many gates: yet "that it was certain they had in it 20,000 chariots of war; for there "were a hundred stables all along the river from Memphis to "Thebes towards Lybia, each of which was capable to hold two "hundred horses, the marks and signs of which are visible at this "day. And we have it related, that not only this king, but the "succeeding princes from time to time, made it their business "to beautify this city; for that there was no city under the sun so "adorned with so many and stately monuments of gold, silver, and "ivory, and multitudes of colossi and obelisks, cut out of one entire "stone. For there were there four temples built, for beauty and "greatness to be admired, the most antient of which was in circuit "thirteen furlongs (about one and a half miles), and five and forty "cubits high, and had a wall twenty-four feet broad. The orna-"ments of this temple were suitable for its magnificence, both for "cost and workmanship. The fabric hath continued to our time, "but the silver and the gold, and ornaments of ivory and precious "stones were carried away by the Persians when Cambyses burnt "the temples of Egypt. At which time they say those palaces at "Persepolis and Susa, and other parts of Media (famous all the "world over), were built by the Persians, who brought over these "rich spoils into Asia, and sent for workmen out of Egypt for that "purpose. And it is reported, that the riches of Egypt were then "so great, that in the rubbish and cinders there were found and "gathered up above 300 talents of gold, and of silver no less than "2,300, which was in the 108th Olympiad. There, they say, are the "wonderful sepulchres of the antient kings, which for state and "grandeur far exceed all that posterity can attain unto at this day. "The Egyptian priests say that in their sacred registers there are "entered 47 of these sepulchres; but in the reign of Ptolemy Lagus "there remained only 17, many of which were ruined and destroyed "when I myself came into those parts. The Thebans boast that they "were the most antient philosophers and astrologers of any people "in the world, and the first that found out exact rules for the "improvement both of philosophy and astrology; the situation of "their country being such as gave them an advantage over others, "more clearly to discern the rising and setting of the stars: and "that the months and years are best and most properly ordered, "and disposed by them; for they measure their days according to "the motion of the sun, and not of the moon; and account 30 days "to each month, and add $5\frac{1}{4}$ days to every 12 months; and by this "means they complete the whole year; but they add no intercalary "months, nor subtract any days, as it is the custom with many of "the Greeks. But those of Thebes seem most accurately to have "observed the eclipses of the sun and moon; and from them do so "manage their prognostications, that they certainly foretell every "particular event." (Bk. I, chaps. 45, 46, Booth's translation, pp. 52, 53.)

Strabo, who visited Thebes about 24 B.C., says:—

"Next to the city of Apollo is Thebes, now called Diospolis, "'with her hundred gates, through each of which issue 200 men, "'with horses and chariots,' according to Homer, who mentions "also its wealth; 'not all the wealth the palaces of Egyptian "'Thebes contain.' Other writers use the same language, and "consider Thebes as the metropolis of Egypt. Vestiges of its "magnitude still exist, which extend 80 stadia (about nine miles) in "length. There are a great number of temples, many of which "Cambyses mutilated. The spot is at present occupied by villages. "One part of it, in which is the city, lies in Arabia; another is in "the country on the other side of the river, where is the Memnonium. "Here are two colossal figures near one another, each consisting of "a single stone. One is entire; the upper parts of the other, from "the chair, are fallen down, the effect, it is said, of an earthquake. "It is believed that once a day a noise as of a slight blow issues "from the part of the statue which remains in the seat and on its "base. When I was at those places with Ælius Gallus, and "numerous friends and soldiers about him, I heard a noise at the "first hour (of the day), but whether proceeding from the base or "from the colossus, or produced on purpose by some of those "standing around the base, I cannot confidently assert. For from "the uncertainty of the cause, I am disposed to believe anything "rather than that stones disposed in that manner could send forth "sound. Above the Memnonium are tombs of kings in caves, and "hewn out of the stone, about forty in number; they are executed "with singular skill and are worthy of notice. Among the tombs "are obelisks with inscriptions, denoting the wealth of the kings of "that time, and the extent of their empire, as reaching to the "Scythians, Bactrians, Indians and the present Ionia; the amount "of tribute also, and the number of soldiers, which composed an "army of about a million of men. The priests there are said to be, "for the most part, astronomers and philosophers. The former "compute the days not by the moon, but by the sun, introducing "into the twelve months, of thirty days each, five days every year. "But in order to complete the whole year, because there is (annually) "an excess of a part of a day, they form a period from out of whole "days and whole years, the supernumerary portions of which in "that period, when collected together, amount to a day. They "ascribe to Mercury (Thoth) all knowledge of this kind. To "Jupiter, whom they worship above all other deities, a virgin of the "greatest beauty and of the most illustrious family (such persons "the Greeks call pallades) is dedicated" . . . . . (Bk. XVII, chap. 1, sec. 46, translated by Falconer.)

Right or East Bank of the Nile:—

1. The Temple of Luxor.—Compared with Karnak, the temple of Luxor is not of the greatest importance, and up to about 1890 the greater part of its courts and chambers was buried by the accumulated rubbish and mud, upon which a large number of houses stood. The excavation of the ruins of



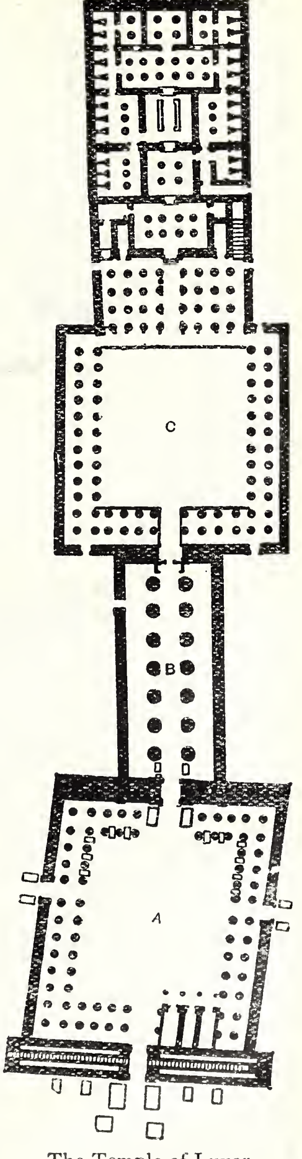
The Temple of Luxor, as it appeared about 1820.
(From *Description de l'Égypte*, tom. iii, pl. 3.)

this temple was begun by M. Maspero, who, with the help of several hundred pounds collected by public subscription by the *Journal des Débats*, began the work in the winter of 1883, and it was prosecuted with such vigour that the natives almost resisted by force the removal of the soil upon which their houses stood. The residence of the British Consul Mustafa 'Aghâ actually stood inside the temple, and he and other owners of houses there were compensated when their dwellings were pulled down. In 1887 M. Grébaut, the successor of M. Maspero, continued the clearing, and shortly afterwards M. Grand Bey, a distinguished official of the Egyptian Government, and a skilled practical architect, was appointed to report on the means which ought to be taken to prevent the collapse of the temple remains, which was beginning to take place owing to the removal of the earth from the walls and pillars.

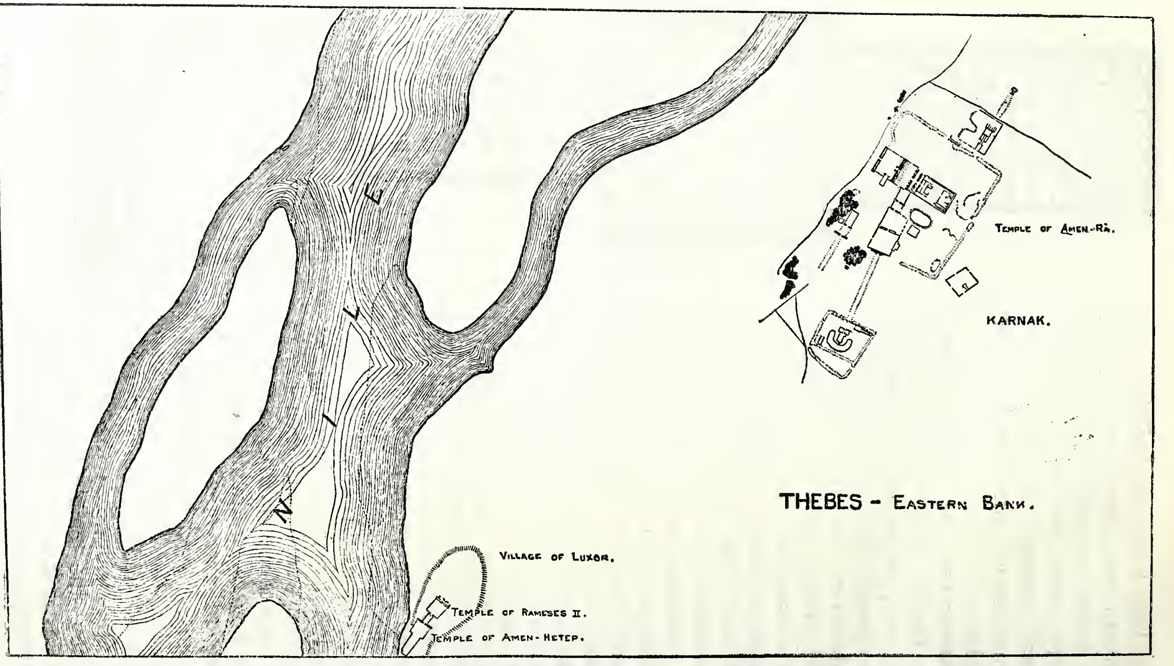
In 1888 and the following years much clearing was done, and many portions of the building were strengthened with modern masonry, and now it is possible for the visitor to walk about in the temple and get an idea of its general plan. The temple is built of sandstone, and stands, probably, upon the site of an earlier religious edifice; it formed an important part of the sacred buildings of Thebes, which were dedicated to the Theban triad of Åmen-Rā, [hieroglyphs], Mut, [hieroglyphs], and Khensu, [hieroglyphs], and was called "The House of Åmen in the Southern Åpt," to distinguish it from "The House of Åmen in the Northern Åpt," *i.e.*, Karnak. It was built by Amenophis III about 1500 B.C., and was at that time the most beautiful temple in Egypt; it was nearly 500 feet long and about 180 feet wide, and was connected with Karnak by means of a paved way, on each side of which was arranged a row of rams with their faces turned towards its main axis. Soon after the death of Amenophis III, his son, the heretic king Amenophis IV, ordered the name and figure of the god Åmen to be erased throughout the temple, and built a small shrine or chapel near his father's great work in honour of the god Åten. The building was not popular among the Egyptians, for on the death of Amenophis IV it was pulled down, and the stones were employed in other parts of the main edifice. Ḥeru-em-ḥeb and Seti I added a number of bas-reliefs, and Rameses II built the large colonnade, a large courtyard with porticoes, a pylon, two obelisks, and some colossal statues,

This last king, in building the courtyard and pylons, made their axes to be in continuation of that of the paved way which led to Karnak, instead of that of the colonnade and other parts of the temple.

During the rule of the Persians over Egypt the temple was sacked and burnt, but under the Ptolemies the damage was partially made good; in 27 B.C. the temple was greatly damaged by the earthquake which wrecked many a noble temple and tomb in Egypt, and a little later the stones which had been thrown down from the walls and columns were employed in building a barrier to keep out the waters from the city. But the damage wrought by the Christians in the Luxor temple was, as at Dêr al-Baḥarî, terrible; for, not content with turning certain sections of it into churches, the more fanatical among them smashed statues, and disfigured bas-reliefs, and wrecked shrines with characteristic savage and ignorant zeal. When the Christians could afford to build churches for themselves they forsook the temple, and then the inhabitants of the town began to build mud houses for themselves in the courtyard and other parts of the building. As these fell down year by year, the natives, who never repair a building if they can help it, built new ones on the old sites, and thus the temple became filled with earth and rubbish. In the fourteenth century a mosque was built in the large courtyard of



The Temple of Luxor.



Temples on the Right or East Bank of the River.

Rameses II by the descendants of a Muḥammadan saint, who is said to have flourished near Mecca either during the life of Muḥammad the Prophet or shortly after; this saint was called Abu Ḥaggâg, and several families now living at Luxor claim him as an ancestor.

The **Obelisk,** hewn out of fine Aswân granite, is one of a pair which stood before the pylon of the temple and proclaimed the names and titles of Rameses II; it is nearly 82 feet high. The companion obelisk now stands in the Place de la Concorde in Paris; under the Commune an attempt was made to throw it down by the mob, but it failed. The front of the temple was ornamented with six colossal statues of Rameses II, four standing and two seated, but of the former three have been destroyed. The seated statues, one on each side of the door, were of black granite, and on the side of the throne of the one which now remains are conventional representations of members of vanquished nations. The top of the **pylon** when first built was about 80 feet above the ground, and its width was nearly 100 feet; each of its towers was hollow, and in their front walls were channels with sockets in the ground, in which large poles with flags flying from them were placed when Thebes was keeping a festival. The face of the pylon is covered with sculptures and texts which refer to the dedication of the pylon to Àmen-Rā, and to the victory of Rameses II over the Kheta The battle, which took place near the city of Kadesh on the Orontes, resulted in the overthrow of a great confederation of Syrian tribes, and Rameses was greatly elated at his victory. Among the texts on the pylon is a description of the fight written by one **Pen-ta-urt,** and this poetical narrative of the momentous event was so much esteemed by the king that he ordered it to be inscribed on stelæ and many public buildings throughout the country. The outsides of the walls built by Rameses II are covered with scenes relating to the same campaign and describing the king in triumph.

The doorway of the **Court** of Rameses II (A) contains reliefs by **Shabaka,** a king of the XXVth dynasty, and in the north-west corner are the ruins of a small chapel which Rameses II built against the pylon; a portico with two rows of pillars runs round most of the four sides. Of the reliefs on the walls some date from the reigns of Amenophis III and Ḥeru-em-heb, but most of them have been usurped by Rameses II; here also are figures of personifications of geographical localities bearing offerings, and in the south-west

corner are figures of 17 of the sons of Rameses II, who are making offerings at the ceremony of the dedication of the pylon. These are followed by a number of sacrificial scenes. The columns of the portico are 72 in number, and have lotus capitals; on each is a relief representing Rameses II making an offering either to Åmen-Rā, or Menu, and some goddess. The little chapel in the north-west corner contains three chambers, which are dedicated respectively to Åmen-Rā, Mut, and Khensu. On each side of the doorway which leads into the colonnade Rameses II placed a huge black granite statue of himself, and between the columns close by were 11 statues of himself in red granite; on the side of each of these last is a figure of one of his wives.

The **Colonnade** (B) beyond the courtyard of Rameses II is a part of the original building of Amenophis III, though the names of many other kings are found in it; but it is doubtful if any of the reliefs on the walls were made by him; the scenes represent the celebration of the festival of Åmen-Rā, the procession of sacred boats to the Nile and back, the ceremonies in the shrine, etc., and many of them date from the time of Ḥeru-em-ḥeb. The lotus columns, 14 in number, are massive but beautifully proportioned; they are about 51 feet high, and about 11 feet in diameter. The **Court of Amenophis III** (C) is next reached. Round three sides of this runs a colonnade with two rows of columns, and the walls are decorated with reliefs belonging to various periods, from that of Amenophis III to that of Alexander and Philip. Beyond this courtyard is a hall containing 32 columns; the walls are ornamented with reliefs of various periods, and the occurrence of the names of several kings in this portion of the building shows that, in parts, it has been often repaired. To the left, between the last two columns, is an altar of the Roman period, with a Latin inscription dedicating it to the Emperor Augustus. Passing through the doorway, a chamber which originally had eight columns is entered; this was altered in several ways, and turned into a church by the Christians, who plastered over the interesting reliefs of the time of Amenophis III with lime, and then painted it with elaborate designs in bright colours. On each side of this chamber is a small chapel; that on the left was dedicated to Mut, and that on the right to Khensu. Leaving the chamber which was turned into a Christian church, and passing through a smaller chamber with four columns, the **shrine of Alexander the Great** is reached. In the time of Amenophis III it contained four

columns, but these Alexander removed, and turned it into a shrine in place of the old shrine which was originally in the last room of the building. In the centre a rectangular building open at both ends was built, and within this was carefully preserved the sacred boat of Rā, wherein was seated a figure of the god. The walls of this shrine are ornamented with reliefs, in which Amenophis III is seen adoring the various gods of Thebes; the ceiling is decorated with figures of vultures and a large number of five-rayed stars painted in yellow on a blue ground. Through a doorway on the left in the sanctuary, and through a second doorway immediately on the left of it, the chamber on which is depicted the **Birth of Amenophis III** is reached; the roof of the chamber is supported by three columns with lotus capitals. Here on the west wall are the following scenes, arranged in three rows:—

First or *Lowest Row.*—(1) Khnemu, seated opposite Isis, fashioning the body of the young king and his *ka* or double upon a potter's wheel; he predicts that the child shall be king of Egypt. (2) Åmen and Khnemu holding converse. (3) Åmen and Mut-em-ua, wife of Thothmes IV, and mother of Amenophis III, holding converse in the presence of the goddesses Selq, or Serq, and Neith. In the text the god Åmen declares that he had taken the form of the husband of Mut-em-ua, and that he is the father of the child who is to be born. (4) Åmen and Thothmes IV. (5) Mut-em-ua being embraced by the goddess Isis in the presence of Åmen. *Second* or *Middle Row.*—(1) Thoth telling the queen that Åmen has given her a son. (2) The queen being great with child, is being sustained by Khnemu and Isis, who make her to breathe "life." (3) The child is born in the presence of Thoueris, the goddess of children, and Bes, the driver away of evil spirits from the bed of birth. (4) Isis offering the child to Åmen, who addresses him as "son of the Sun." (5) The child Amenophis III seated on the knees of Åmen, whilst his destiny is being decreed in the presence of Isis or Hathor; Mut offers to him a palm branch, at the end of which is the emblem of festivals. Åmen declares that he will give him "millions of years, like the Sun." *Third* or *Top Row.*—(1) The queen seated on the bed of birth, and the child being suckled by Hathor in the form of a cow. (2) The seven Hathors (?) and two goddesses. (3) The Niles of the South and North purifying the child. (4) Horus presenting the king and his *ka* to Åmen. (5) The gods Khnemu and Anubis. (6) The king and his *ka* seated and

standing before Âmen. (7) The king seated on his throne. The scenes on the south wall refer to the acknowledgment of his sovereignty by the gods of Egypt. The remaining chambers of the temple are not of any special interest. It will be noted that the idea of the scenes of the Birth Chamber is copied from the temple of Ḥatshepsut at Dêr al-Baḥarî. A chamber adjoining the Birth Chamber was built by **Alexander the Great** to hold the sacred bark of the god Âmen. Here on the walls are figures of Alexander standing before Âmen and the gods and goddesses of Karnak. It is easy to understand the motive that prompted him to pay honour to Âmen, for it will be remembered that he visited the temple of Âmen, in the Oasis of Sîwah, with the express purpose of making Amen admit that he was his son, and that the divine blood of the gods and kings of Egypt flowed in his veins. The Egyptians received the god's words with great satisfaction, and in consequence Alexander's conquest of the country was peaceful.

2. The Temple at Karnak.—The ruins of the buildings at Karnak are perhaps the most wonderful of any in Egypt, and they merit many visits from the traveller. It is probable that this spot was "holy ground" from a very early to a very late period, and we know that a number of kings from Usertsen I to Ptolemy IX lavished much wealth to make splendid the famous shrine of Âmen in the Âpts, and other temples situated there. Of the temples that occupied the site in predynastic times and under the first six dynasties we know nothing. The temples of Luxor and Karnak were united by an avenue about 6,500 feet long and 80 feet wide, on each side of which was arranged a row of sphinxes; from the fact that these monuments are without names, M. Mariette thought that the avenue was constructed at the expense of the priests or the wealthy inhabitants of the town, just as in later days the pronaos of the temple at Denderah was built by the people of that town. At the end of this avenue, to the right, is a road which leads to the so-called **Temple of Mut**, which was also approached by an avenue of sphinxes. Within the enclosure there stood originally two temples, both of which were dedicated to Âmen, built during the reign of Amenophis III; Rameses II erected two **obelisks** in front of the larger temple. To the north-west of these a smaller temple was built in Ptolemaïc times, and the ruins on one side

of it show that the small temples which stood there were either founded or restored by Rameses II, Osorkon, Tekeleth, Sabaco, Nectanebus I, and the Ptolemies. Behind the temple enclosure are the remains of a temple dedicated to **Ptaḥ of Memphis** by Thothmes III; the three doors behind it and the courts into which they lead were added by Sabaco, Tirhakah, and the Ptolemies.

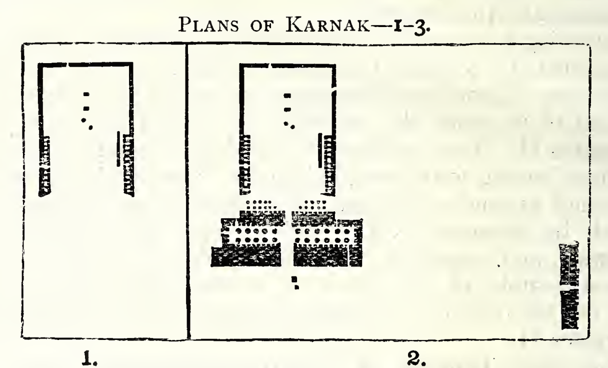
Returning to the end of the avenue of sphinxes which leads from Luxor to Karnak, a second smaller avenue ornamented with a row of ram-headed sphinxes on each side is entered; at the end of it stands the splendid pylon built by Ptolemy IX, Euergetes II. Passing through the door, a smaller avenue of sphinxes leading to the temple built by Rameses III is reached; the small avenue of sphinxes and eight of its columns were added by Rameses XII. This temple was dedicated to **Khensu,** and appears to have been built upon the site of an ancient temple of the time of Amenophis III. To the west of this temple is a smaller temple built by Ptolemy IX, Euergetes II.

The great **Temple of Åmen at Karnak** fronted the Nile, and was approached by means of a small avenue of ram-headed sphinxes which were placed in position by Rameses II. Passing through the first pylon, a court or hall, having a double row of pillars down the centre, is entered; on each side is a corridor with a row of columns. On the right-hand (south) side are the ruins of a temple built by Rameses III, and on the left are those of another built by Seti II. This court or hall was the work of Shashanq, the first king of the XXIInd dynasty. On each side of the steps leading through the second pylon was a colossal statue of Rameses II; that on the right-hand side has now disappeared.

Passing through this pylon, the famous "**Hall of Columns**" is entered. The 12 columns forming the double row in the middle are about 60 feet high and about 35 feet in circumference; the other columns, 122 in number, are about 40 feet high and 27 feet in circumference. Rameses I set up one column, Seti I, the builder of this hall, set up 79, and the remaining 54 were set up by Rameses II. It is thought that this hall was originally roofed over. At the end of it is the third pylon, which was built by Amenophis III, and served as the entrance to the temple until the time of Rameses I. Between this and the next pylon is a narrow passage, in the middle of which stood two **obelisks** which were set up

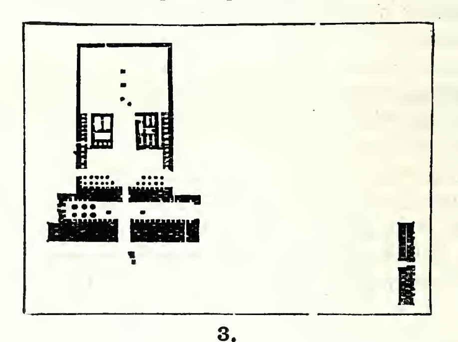
by Thothmes I, the southern one is still standing, and bears the names of this king, but the northern one has fallen,* and its fragments show that Thothmes III caused his name to be carved on it. At the southern end of this passage are the remains of a gate built by Rameses IX. The fourth and fifth pylons were built by Thothmes I. Between them stood

PLANS OF KARNAK—1–3.



1. 2.

1. Karnak before the time of Thothmes I, 1550 B.C.
2. Karnak during the reign of Thothmes I.



3.

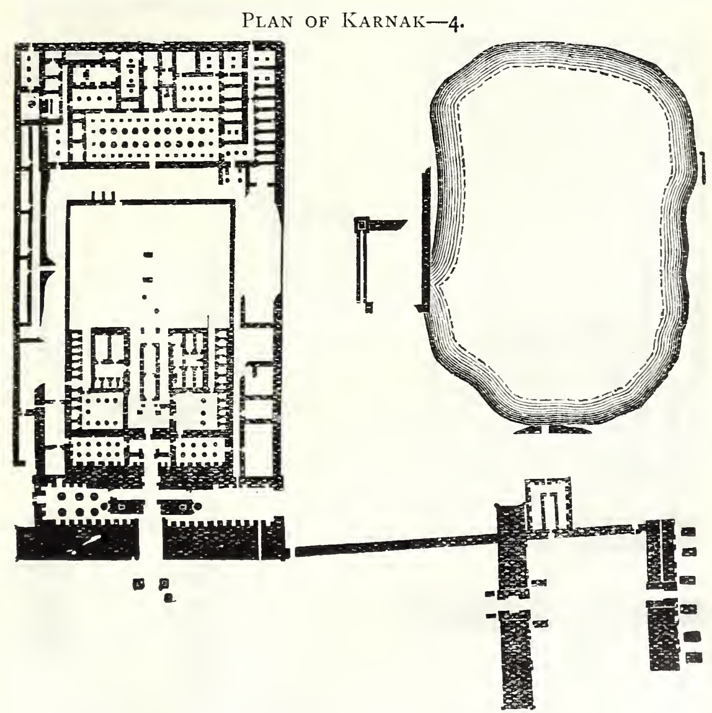
3. Karnak during the reign of Queen Hatshepsut, 1500 B.C.
From Mariette, *Karnak*, Pl. VI.

14 columns, six of which were set up by Thothmes I, and eight by Amenophis II, and two granite obelisks; one of the obelisks still stands. They were hewn out of the granite quarry by the command of **Ḥatshepsut,** the daughter of Thothmes I, and sister of Thothmes II and aunt of Thothmes III.

* It was standing when Pococke visited Egypt in 1737–1739.

This able woman set them up in honour of "father Amen," and she relates in the inscriptions on the base of the standing obelisk that she covered their tops with *tchām* metal, *i.e.*, gold containing a large proportion of silver, so that they could be seen from a very great distance, and that she had them hewn and brought down to Thebes in about seven months. These obelisks were brought into their chamber from the south side,

PLAN OF KARNAK—4.



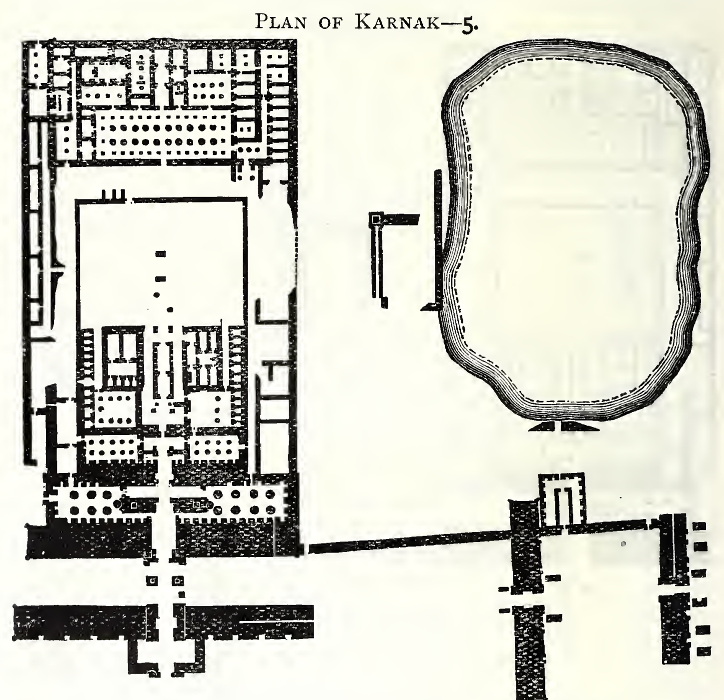
Karnak during the reign of Thothmes III, 1500 B.C.
From Mariette, *Karnak*, Pl. VI.

and were 98 feet and 105 feet high respectively; the masonry round their bases is of the time of Thothmes III.

The sixth pylon and the two walls which flank it on the north and south are the work of Thothmes III, but Seti II, Rameses III, and Rameses IV have added their cartouches to them. On this pylon are inscribed a large number of

geographical names of interest. Passing through it the visitor finds himself in a vestibule which leads into a red granite oblong chamber, inscribed with the name of Philip III of Macedon, which is often said to have formed the sanctuary. In the chambers on each side of it are found the names of Amenophis I, Thothmes I, Thothmes II, Ḥatshepsut, and Thothmes III. The sanctuary stood in the centre of the large

Plan of Karnak—5.

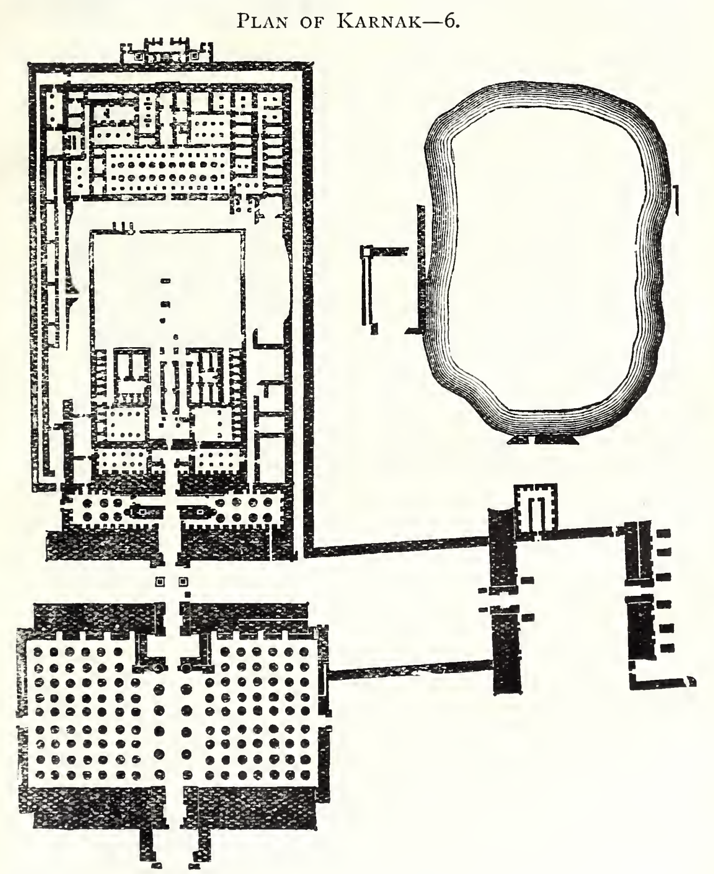


Karnak during the reign of Amenophis III, 1450 B.C.
From Mariette, *Karnak*, Pl. VI.

court beyond the two oblong red granite pedestals. In ancient days, when Thebes was pillaged by her conquerors, it would seem that special care was taken to uproot not only the shrine, but the very foundations upon which it rested. Some fragments of columns inscribed with the name of Usertsen I found there prove, however, that its foundation dates from the reign of this king. Beyond the sanctuary court is a large building of the time of Thothmes III. In it was found the famous

Tablet of Ancestors, now in Paris, where this king is seen making offerings to a number of his royal ancestors. On the north side of the building is the chamber in which he made his offerings, and on the east side is a chamber where he adored

PLAN OF KARNAK—6.



Karnak under Rameses II, 1333 B.C.
From Mariette, *Karnak*, Pl. VII.

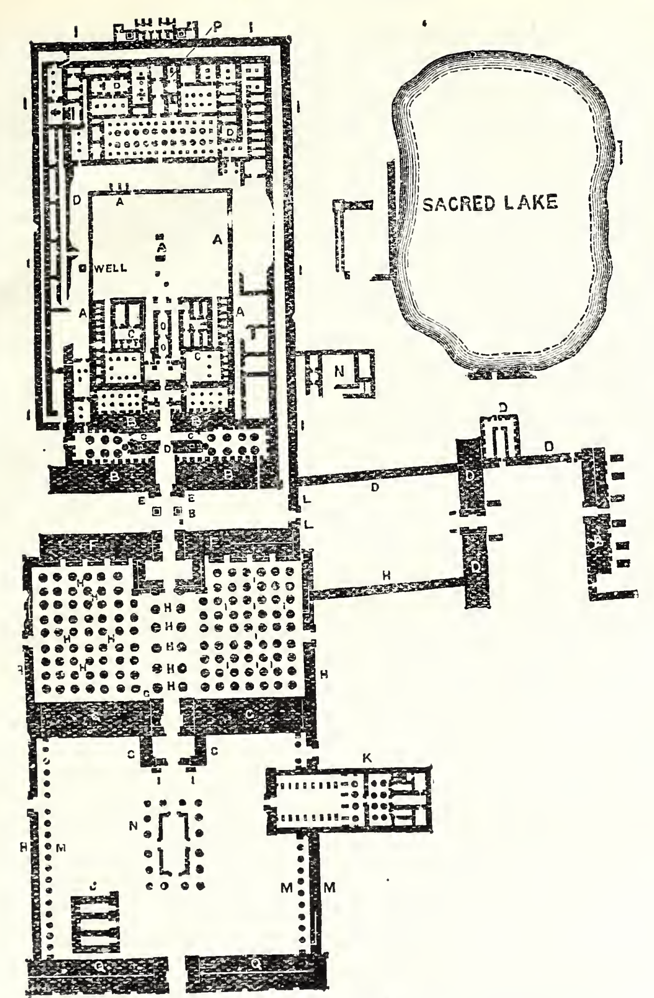
the hawk, the emblem of the Sun-god Rā; this latter chamber was restored by Alexander II (of Egypt). Behind the great temple, and quite distinct from it, was another small temple. On the south side of the great temple was a lake which was

filled by infiltration from the Nile; it appears only to have been used for processional purposes, as water for ablutionary and other purposes was drawn from the well on the north side of the interior of the temple. The lake was dug during the reign of Thothmes III, and its stone quays probably belong to the same period.

Passing through the gate at the southern end of the passage in which stands the obelisk of Ḥatshepsut, a long avenue with four pylons is entered; the first was built by Thothmes III, the second by Thothmes I, and the third and fourth by Ḥeru-em-ḥeb. Between these last two, on the east side, stood a temple built by Amenophis II. On the north side of the Great Temple are the ruins of two smaller buildings which belong to the time of the XXVIth dynasty.

The outside of the north wall of the Great Hall of Columns is ornamented with some interesting scenes from the battles of Seti I against the peoples who lived to the north-east of Syria and in Mesopotamia, called Shasu, Rutennu, and Kharu. The king is represented as having conquered all these people, and returning to Thebes laden with much spoil and bringing many captives. It is doubtful if the events really took place in the order in which they are depicted; but the fidelity to nature, and the spirit and skill with which these bas-reliefs have been executed, make them some of the most remarkable sculptures known. The scene in which Seti I is shown grasping the hair of the heads of a number of people, in the act of slaying them, is symbolic.

The outside of the south wall is ornamented with a large scene in which Shashanq (Shishak), the first king of the XXIInd dynasty, is represented smiting a group of kneeling prisoners; the god Åmen, in the form of a woman, is standing by presenting him with weapons of war. Here also are 150 cartouches, surmounted by heads, in which are written the names of the towns captured by Shishak. The type of features given to these heads by the sculptor shows that the vanquished peoples belonged to a branch of the great Semitic family. The hieroglyphics in one of the cartouches were supposed to read "the king of Judah," and to represent **Jeroboam,** who was vanquished by Shishak; it has now been proved conclusively that they form the name of a place called Iuta-melek. Passing along to the east, the visitor comes to a wall at right angles to the first, upon which is inscribed a copy of the poem of Pen-ta-urt, celebrating the victory of Rameses II over the



Karnak under the Ptolemies. (From Mariette, *Karnak*, Pl. VII.)

A. Walls standing before the time of Thothmes I.
B. Pylons built by Thothmes I.
C. Walls and obelisks of Ḥatshepsut.
D. Walls, pylon, etc., of Thothmes III.
E. Gateway of Thothmes IV.
F. Pylon of Amenophis III.
G. Pylon of Rameses I.
H. Walls and columns of Seti I.
I. Columns, walls, and statues of Rameses II.
J. Temple of Seti II.
K. Temple of Rameses III.
L. Gateway of Rameses IX.
M. Pillars and walls of the XXIInd dynasty.
N. Pillars of Tirhakah.
O. Corridor of Philip III of Macedon.
P. Chamber and shrine of Alexander II.
Q. Pylon built by the Ptolemies.

Kheta, in the fifth year of his reign; and on the west side of the wall is a stele on which is set forth a copy of the offensive and defensive treaty between this king and the prince of the Kheta.

The inscriptions on the magnificent ruins at Karnak show that from the time of Usertsen I, 2433 B.C., to that of Alexander II, 312 B.C. (?), the religious centre of Upper Egypt was at Thebes, and that the most powerful of the kings of Egypt who reigned during this period spared neither pains nor expense in adding to and beautifying the temples there. In fact, it was as much a pleasure as a duty for a king to repair the old buildings of the famous shrine of Karnak, or to build new ones, for the walls and pylons of that ancient sanctuary constituted a book of fame in the best and greatest sense in the opinion of the Egyptians. The fury of the elements, the attacks of Egypt's enemies, and the yearly rise of the Nile have all contributed powerfully towards the destruction of these splendid buildings; but what has helped most of all to injure them is the weakness of the foundations of their walls and columns, and the insufficiency of their bases. So long as the columns were partly buried in earth and rubbish, very little strain was put upon them, and they appeared sound enough; but when the masses of earth which surrounded their bases were removed, experts declared that a number of them would fall. In 1899 11 of the columns in the Great Hall at Karnak *did* fall, and an examination of their foundations showed the reasons, viz., insufficiency of base, poor foundations, and to these may be added, as Sir W. Garstin said, unstable equilibrium of the soil caused by alteration of the levels of the Nile. Much injury has, of course, also been caused to the stones of the columns by the salts which were present in the masses of earth which formerly surrounded them. It is satisfactory to be able to state that funds were found by Lord Cromer, and that the 11 columns have been re-erected to their full height. Each stone has been placed in its former position, and the work of replacing the capitals and the architraves has been carried out in such a way that the restored columns will not be over-weighted. This fine piece of restoration was effected by **M. George Legrain,** who was in charge of all the work connected with the restoration. He rebuilt the columns very skilfully, without accident or damage to a single stone, and his energy and devotion to the work deserve the gratitude of all lovers of antiquity. Under his care, excavation and restoration went hand in hand, and

all must regret that his sudden death stopped the work just when the best results were to be anticipated.

During the course of the work at Karnak, M. Legrain made a "find" of statues of unparalleled historical interest; as Sir William Garstin says, nothing like it has been made since Mariette Pâshâ's excavations at the Serapeum. It seems that in 1883 M. Maspero sank some trial shafts near the seventh pylon of the Temple of Karnak, and was rewarded by the discovery of a large number of pieces of statues, and architectural fragments of considerable size. In 1901 and 1902, M. Legrain began work at this place, and, among other things, found several fine reliefs of Amen-ḥetep I. Inasmuch as these reliefs showed no signs of the hammering out of the name of Åmen which took place in the reign of Åmen-ḥetep IV, it was clear that they had been cast down from their places in the reign of some earlier king of the XVIIIth dynasty. Subsequently monuments of the reigns of Ḥatshepsut and Thothmes III were discovered, and also a statue of the period of Seti I. In 1903, when the work was continued, M. Legrain discovered a vast pit literally filled with statues which had been cast into it by the order of some king who was about to repair or enlarge the Temple of Karnak. As a result of the excavations of 1903, M. Legrain brought up out of the pit 457 statues in granite, alabaster, calcareous stone, basalt, breccia, quartz, mother-of-emerald, sandstone, petrified wood, etc.; 7 stone sphinxes, 5 sacred animals, 15 stelæ in granite, etc.; 3 figures of Osiris in lead and 40 in stone; and 8,000 bronze figures of Osiris and other gods; in all 8,519 objects. Work was resumed in 1905, and 170 more statues were discovered, and 8,000 figures of Osiris in bronze, etc.; in all 8,268 objects. The oldest statue found clearly belongs to the period of Khā-sekhemui . Of the XIth dynasty was found the statue of a king called Menthu-ḥetep , with the prenomen of Mer-ānkh-Rā , and a portion of a statue of a king called Se-ānkh-ka-Rā .

Of kings of the XIIIth and XIVth dynasties the "find" at Karnak supplies the following rare names:—Khu-taui-Rā , Mer-sekhem-Rā Nefer-ḥetep (III)

[cartouches], and MER-ḤETEP-RĀ SEBEK-ḤETEP (VIII) [cartouches]. A fragment of a small obelisk also supplies [hieroglyphs], ḤETEP-NETERU, the Horus name of SEBEK-EM-SA-F I, and a portion of his prenomen. Statues of the XVIIIth dynasty are numerous, and the most important of them historically is that of Tut-ānkh-Amen, which was usurped by Ḥeru-em-ḥeb. The statues which belong to the XXIInd dynasty are of great value historically, and supply a number of important data, which enable us to fix the order of some of its kings with considerable accuracy. Of a later period the statues of king Tirhâḳâh and the princess Ānkh-nes-nefer-âb-Rā are of special interest, and we learn that the prenomen of the latter was MUT-ḤEQ-NEFERT [cartouche]. The following summary of the results of this great discovery derived from a paper read by M. Legrain on November 7th, 1904, at a meeting of the Egyptian Institute in Cairo, will help the reader to appreciate the great importance of the "find." In the course of the work in 1903 M. Legrain lighted upon a sort of pit or *cachette* on the southern side of the ruins, in which, in the midst of mud and water, innumerable statues were piled *pêle-mêle*, one upon the other. Along with them were bronzes, which included about a thousand gilded bronze figures of Osiris, as well as other objects. The fact that most of the monuments were below the present level of the water made the labour of excavating very considerable, but before the season was over M. Legrain was rewarded by the discovery of 450 statues of stone, in a more or less perfect state of preservation, and 170 more in 1905. These have now been transferred to the Cairo Museum.

Among the statues are many royal ones. Perhaps the most remarkable, and certainly the most unexpected, are those of kings of the Old Empire, which settle once for all the antiquity of the great Theban sanctuary. The series begins with a statue which, from its likeness to the statue of Khāsekhemui, was assigned by M. Legrain to the IInd dynasty, and is followed by statues of Khufu or Cheops, of User-en Rā and of Saḥu-Rā, of the IVth and Vth. The XIth dynasty is represented by a statue of Mentu-ḥetep, and a headless seated statue of Antef-āa, whom the dedicator of the image, Usertsen I,

describes as his forefather. There are some fine statues of the kings of the XIIth and XIIIth dynasties, some hitherto unknown Pharaohs being included among the latter, as well as a sphinx of magnificent workmanship, the features of which recall those of the so-called Hyksos sphinxes of the Delta. As might be expected, the kings and queens of the XVIIIth dynasty are numerous. The figure of Thothmes III, in fact, is the *chef d'œuvre* of the whole collection, and is one of the most beautiful works of art that have been bequeathed to us by antiquity. It is extremely interesting also for another reason. The profile of the face is European rather than Egyptian, and reminds us of the statuary of classical Greece. Another interesting statue is that of the "heretic king," Åmen-ḥetep IV, in fossil wood. This too is evidently a portrait, and makes it clear that the usual representations of the king are mere cari catures. His face as seen in this statue is that of a dreamy visionary, and, though somewhat plain, is very far from being ugly or repulsive. Next to the portrait-statue of Thothmes III, however, the finest artistic work is a statue of Tutānkh-Åmen, whose features, as M. Legrain pointed out, have been reproduced in a beautiful statue of the god Khensu, which must therefore have been executed in his reign, though usurped by Ḥeru-em-ḥeb. A statue of Rameses II must also be noticed for its artistic finish, though it lacks the strength of the earlier work; and, coming down to later times, a statue of the Ethiopian king, Taharqa, is also worthy of attention. One of the statues is shown by its Greek drapery to belong to the Ptolemaïc epoch. Besides the royal images, there is an immense number of statues of the priests and prophets of Åmen and other high officials. From one or two of these M. Legrain skilfully extracted important historical information. Thus a genealogy which goes back for sixteen generations to a certain Sheben makes the tenth descendant of the latter a contemporary of Shishak, the founder of the XXIInd dynasty, and introduces us to a new king, Ḥeru-sa-Åst, who must have lived in the time of Osorkon II. As Brugsch was the first to point out, these genealogies are the best means we have at present for controlling the chronology of ancient Egypt. Another monument is interesting as the memorial of the general who was sent by Psammetichus against the revolted troops whose rebellion is described by Herodotus, while yet another shows that the XXIst and XXIIIrd dynasties must have been contemporaneous, thus explaining the puzzlingly

long period which the monuments assign to the XXIInd dynasty.

One of the most important results of M. Legrain's discovery is the evidence it furnishes that up to the Greek age the Egyptian temples contained all the materials needful for reconstructing the past history of the country. They were filled with inscribed statues and other monuments which formed a continuous series of contemporaneous documents from the earliest period of the kingdom. Herodotus is thus shown to have said no more than the truth when he declared that Hecatæus had seen at Thebes the statues of 345 high priests of Åmen who had followed one another in a regular succession. It is a fresh proof that the vast antiquity to which Egyptian history lays claim is really founded on fact. In a luminous and eloquent address delivered by way of conclusion to M. Legrain's paper, M. Maspero explained how such an extraordinary collection of statues came to have been buried. After its destruction, first by the Assyrians and then by the Persians, Thebes lay neglected and in ruins until the time of the earlier Ptolemies, who, in their desire to conciliate the natives and be regarded as the representatives of the ancient Pharaohs, undertook the restoration of the venerable sanctuary of Åmen. But the problem presented itself, what to do with the numberless statues, many of them half-broken, which were scattered among the ruins. They had neither artistic nor historical value in the eyes of the restorers, but a belief in their sacred, or rather magical, character prevented them from being destroyed. They were therefore buried out of the way, and new buildings erected on the foundations which they helped to form. The fact that the latest of the statues found is of the Greek period indicates pretty clearly the date at which their entombment took place.

3. The **Temple of Ptaḥ** lies to the north of the Temple of Amen; it was built by Thothmes III, and was restored and added to by Shabaka and other later kings. At the east end of it are two rooms of interest, for one contains a statue of Ptaḥ, and the other a statue of his counterpart, Sekhmet.

4. Scarabæus of **Åmen-ḥetep III.** This colossal scarab is a symbol of Åten-Kheperå, the Creator, and it is to be seen at the west end of the sacred lake of the Temple of Åmen.

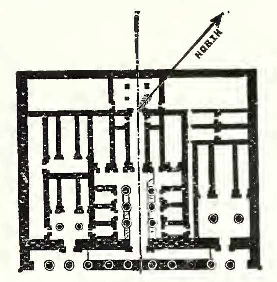
5. The **Temple of Mut** was built by Amen-ḥetep III, and was connected with the southern buildings of the Temple of

Amen by the avenue of Sphinxes set up by Ḥeruemḥeb. The sacred lake enclosed the southern end of the building.

6. The **Temple of Madamût.**—It was founded by Åmenḥetep II, who dedicated it to Menthu, the War-god.

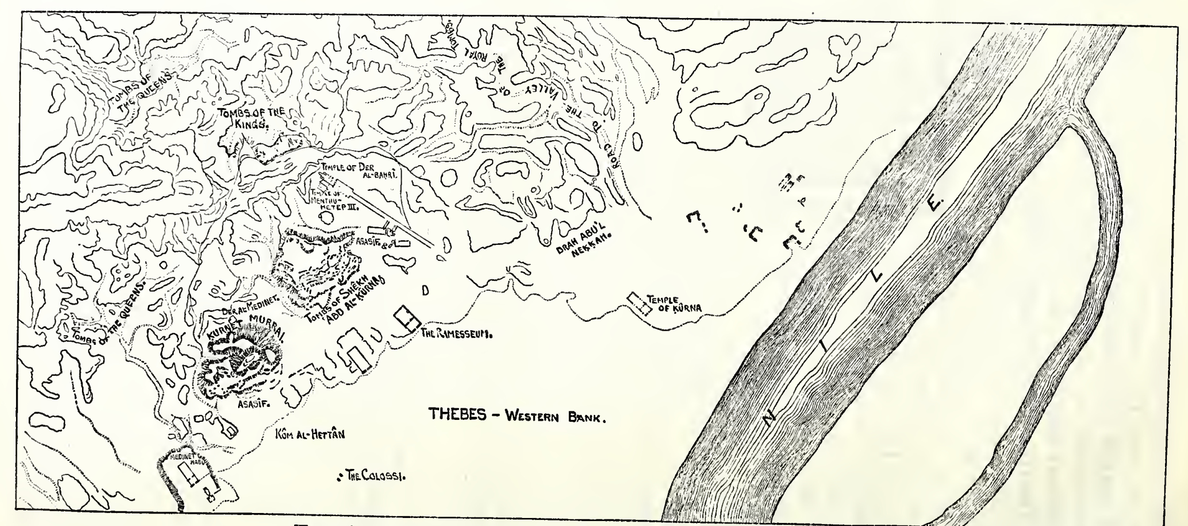
Left or West Bank of the Nile:—

1. The **Temple of Ḳûrnah.**—This temple was built by Seti I in memory of his father Rameses I; it was completed by Rameses II, by whom it was rededicated to the memory of his father Seti I. Two pylons stood before it, and joining them was an Avenue of Sphinxes. This temple was to all intents and purposes a cenotaph, and as such its position on the edge of the desert, at the entrance to a necropolis, is explained. In the temple were six columns, and on each side were several small chambers. The sculptures on the walls represent Rameses II making offerings to the gods, among whom are Rameses I and Seti I. According to an inscription there, it is said that Seti I went to heaven and was united with the Sun-god before the temple was finished, and that Rameses II made and fixed the doors, finished the building of the walls, and decorated the interior. The workmanship in parts of this temple recalls that of certain parts of Abydos; it is probable that the same artists were employed.



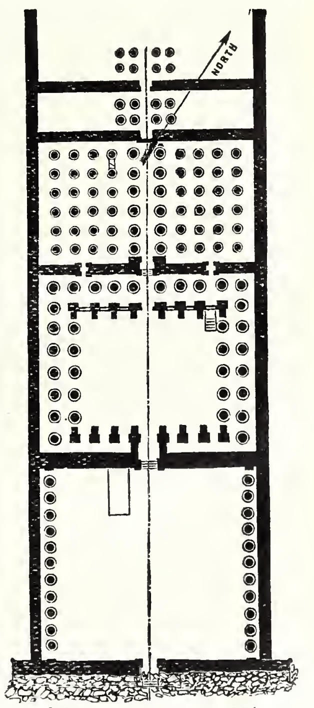
Plan of the Temple at Ḳûrnah.

2. The **Ramesseum.** — This temple, called also the **Memnonium** and the **Tomb of Osymandyas** (Diodorus I, iv), was built by Rameses II in honour of Åmen-Rā. As at Ḳûrnah, two pylons stood in front of it. The first court had a single row of pillars on each side of it; passing up a flight of steps and through the second pylon is a second court, having a double row of round columns on the east and west sides, a single row on the north, and a row of pilasters, to which large figures of Rameses II under the form of Osiris are attached, on the north and south sides. Before the second pylon stood a colossal statue of Rameses II, at least 60 feet high, which has been thrown down (by Cambyses?), turned over on its back, and mutilated. In the hall are 12 huge columns, arranged in two rows, and 48 smaller ones arranged in six rows. On the interior face of the second



Temples, Tombs, etc., on the Left or West Bank of the River.

pylon are sculptured scenes in the war of Rameses II against the Kheta, which took place in the fifth year of his reign; in them he is represented slaying the personal attendants of the prince of the Kheta. Elsewhere is the famous scene in which Rameses, having been forsaken by his army, is seen cutting his way through the enemy, and hurling them one after the other into the Orontes near Kadesh. The walls of the temple are ornamented with small battle scenes and reliefs representing the king making offerings to the gods of Thebes. On the ceiling of one of the chambers is an interesting astronomical piece on which the 12 Egyptian months are mentioned.



Plan of the Ramesseum at Ḳûrnah.

The following is the account of the Tomb of Osymandyas given by Diodorus:—

"And these things are not only "reported by the Egyptian priests, "out of their sacred records, but "many of the Grecians, who tra-"velled to Thebes in the time of "Ptolemy Lagus, and wrote his-"tories of Egypt (among whom "was Hecateus), agree with what "we have related. Of the first "sepulchres (wherein they say the "women of Jupiter were buried), "that of king Osymandyas was "ten furlongs in circuit; at the "entrance of which they say was "a portico of various-coloured "marble, in length two hundred "feet, and in height five-and-forty "cubits: thence going forward, "you come into a four-square stone "gallery, every square being four "hundred feet, supported, instead of pillars, with beasts, each of "one entire stone, sixteen cubits high, carved after the antique "manner. The roof was entirely of stone; each stone eight cubits "broad, with an azure sky, bespangled with stars. Passing out of "this peristylion, you enter into another portico, much like the "former, but more curiously carved, and with more variety. At the "entrance stand three statues, each of one entire stone, the work-"manship of Memnon of Sienitas. One of these, made in a sitting "posture, is the greatest in all Egypt, the measure of his foot "exceeding seven cubits; the one standing on the right, and the "other on the left, being his daughter and mother. This piece is

"not only commendable for its greatness, but admirable for its cut "and workmanship, and the excellency of the stone. In so great "a work there is not to be discerned the least flaw, or any other "blemish. Upon it there is this inscription :—'I am Osymandyas, "'king of kings ; if any would know how great I am, and where "'I lie, let him excel me in any of my works.'

"There was likewise at this second gate, another statue of his "mother, by herself, of one stone, twenty cubits in height; upon "her head were placed three crowns, to denote she was both the "daughter, wife, and mother of a king. Near to this portico, they "say there was another gallery or piazza, more remarkable than "the former, in which were various sculptures, representing his "wars with the Bactrians, who had revolted from him, against "whom (it is said) he marched with four hundred thousand foot, and "twenty thousand horse ; which army he divided into four bodies, "and appointed his sons generals of the whole.

"In the first wall might be seen the king assaulting a bulwark, "environed with the river, and fighting at the head of his men, "each against some that make up against him, assisted by a lion, "in a terrible manner ; which some affirm, is to be taken for a true "and real lion, which the king bred up tame, which went along "with him in all his wars, and by his great strength, ever put the "enemy to flight. Others make this construction of it, that the "king being a man of extraordinary courage and strength, he was "willing to trumpet forth his own praises, setting forth the bravery "of his own spirit, by the representation of a lion. In the second "wall were carved the captives dragged after the king, represented "without hands, etc. ; which was to signify that they were of "effeminate spirits, and had no hands when they came to fight. "The third wall represented all sorts of sculptures, and curious "images, in which were set forth the king's sacrificing of oxen, and "his triumphs in that war.

"In the middle of this peristylion, open to the air at the top, was "reared an altar of shining marble, of excellent workmanship, and "for largeness to be admired. In the last wall were two statues, "each of one entire stone, seven-and-twenty cubits high : near to "which, three passages opened out of the peristylion, into a stately "room, supported with pillars like to a theatre for music ; every "side of the theatre was two hundred feet square. In this, there "were many statues of wood, representing the pleaders and "spectators, looking upon the judges that gave judgment. Of "these, there were thirty carved upon one of the walls. In the "middle sat the chief justice, with the image of truth lying about "his neck, with his eyes closed, having many books lying before "him. This signified that a judge ought not to take any bribes, "but ought only to regard the truth and merits of the cause."

3. The **Colossi.**—These two interesting statues were set up in honour of **Amenophis III,** and they probably represented the king as king of the south wearing the crown, and as king of the north wearing the crown 𓋔 ; they stood in front of the pylon temple which was built by this king; this has now entirely

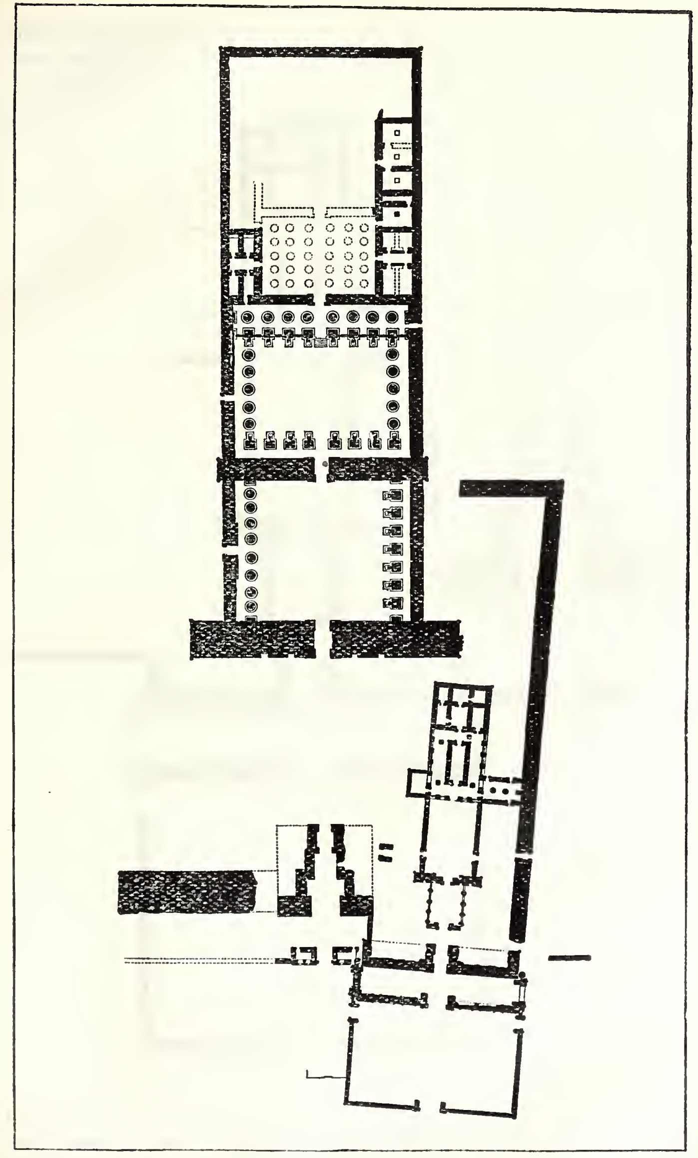
disappeared. They were hewn out of a hard grit-stone, and the top of each, with its crown on, was about 70 feet above the ground; originally each was monolithic. The colossus on the north is the famous "vocal statue" of **Memnon,** from which a sound was said to issue every morning when the sun rose. How Åmen-ḥetep III came to be associated with Memnon* is not clear, but it may be due to confusing the names. As tombs of Memnon were shown in several places, one being in Ethiopia, it may have been supposed that another tomb of his was at Thebes, and its site located by the colossus. The sound supposed to be emitted is described as being like that of a broken chord. The upper part of it was thrown down by an earthquake, it is said, about 27 B.C.; the damage was partially repaired during the reign of Septimius Severus, who restored the head and shoulders of the figure by adding to it five layers of stone. When Strabo was at Thebes with Ælius Gallus he heard "a noise at the first hour of the day, " but whether proceeding from the base or from the colossus, " or produced on purpose by some of those standing round the " base, I cannot confidently assert." It is said that after the colossus was repaired no sound issued from it. Some think that the noise was caused by the sun's rays striking upon the stone, while others believe that a priest hidden in the colossus produced it by striking a stone. The inscriptions show that many distinguished Romans visited the "vocal Memnon" and heard the sound; one Petronianus, of a poetical turn of mind, stated that it made a sighing sound in complaining to its mother, the dawn, of the injuries inflicted upon it by Cambyses. The inscriptions on the back of the colossi give the names of Amenophis III.

4. **Madînat Habû.**—This village lies to the south of the colossi, and its foundation dates from Coptic times. The early Christians established themselves around the ancient Egyptian temple there, and, having carefully plastered over the wall sculptures in one of its chambers, they used it as a chapel. Round and about this temple many Greek and Coptic inscriptions have been found, which prove that the Coptic community here was one of the largest and most important in Upper Egypt.

The Egyptian name of the site was Åat-tcha-Mutet, which

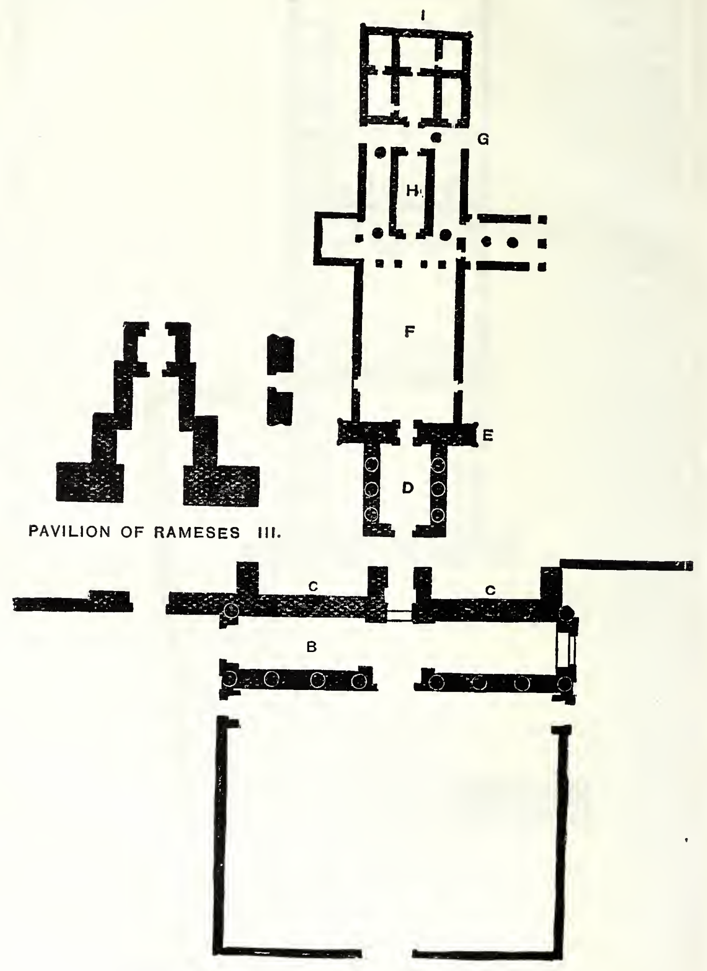
* Memnon was the son of Tithonus and Eos, and brother of Emathira, who assisted Priam with his Ethiopians against the Greeks. He slew Antilochus, the son of Nestor, at Troy, and was slain by Achilles.

the Copts turned into Tchême. The principal buildings at Madînat Habû are:—The Little Temple, the chapels built by royal personages in the XXVIth dynasty, the "Pavilion of Rameses III," and the Great Temple. The collection of buildings which forms the **Little Temple** belongs to various periods, the oldest dating from the reigns of the early kings of the XVIIIth dynasty (Thothmes II and III), and the most recent from the time of the Roman rule over Egypt. The paved courtyard (A) is the work of the Roman period, and in it are inscriptions which record the addresses made to various gods by the Emperor Antoninus. The pylon (C), which was built by Ptolemy X and Ptolemy XIII, is reached by crossing a smaller court (B), also of the Roman period; the reliefs upon it represent these kings making offerings to the great gods of Egypt, and below them is the text of a hymn to the Sun. This pylon leads to the courtyard built by Nectanebus II (D), and to the pylon built at the end of it by royal Ethiopian personages (E). The scenes on the walls of the court of Nectanebus represent the king slaughtering prisoners, processions of the personifications of nomes, the king making offerings, etc. The pylon was built by Shabaka, and additions were made by Tirhakah, Nectanebus II, and Ptolemy X. Beyond this pylon is another courtyard, of uncertain date, containing 16 pillars, eight on each side (F). The oldest part of the building is the XVIIIth dynasty temple (G), which consists of a shrine chamber (H), open at each end, and surrounded by an open gallery, and a group of six small chambers beyond (I). The royal name most frequently found on the temple is that of Rameses III, who added several reliefs, in which he is represented making offerings to the gods. In the open gallery are the names of Thothmes III, Ḥeru-em-ḥeb, Seti I, and Ptolemy IX; on one of the pillars is a text showing that Thothmes III dedicated the temple to Menthu, the lord of Thebes. Repairs were carried out on some of the pillars in this gallery by Queen Åmenårṭas and Achoris. On the walls of the shrine chamber Thothmes III and Ptolemy Physkon are depicted making offerings to the gods of Thebes, and the inscriptions show that the chamber was rebuilt by the latter king. In one of the chambers beyond is an unfinished red granite shrine in which the boat or emblem of the god Åmen-Rā was kept. The Little Temple was, like all other temples, enclosed within a wall of unbaked bricks, but its extent and position were



Plan of the Temples and other Buildings at Madînat Habû. (After Lepsius.)

modified at different periods to suit the arrangements made by the various kings who restored old buildings or added new ones to the site.



The Little Temple of Thothmes II at Madînat Habû.

To the left of the Little Temple and the Pavilion of Rameses III lie the **Temple of Queen Âmenârṭas**, the daughter of Kashta, and three small chapels dedicated by

Shep-en-àp, daughter of Piānkhi, Meḥt-en-usekht, wife of Psammetichus I, and Nit-àqert (Nitocris), daughter of Psammetichus I. The scenes on the walls of the chapels are of the same class as those on the Temple of Åmenàrṭas, and, though interesting, are of no great importance.

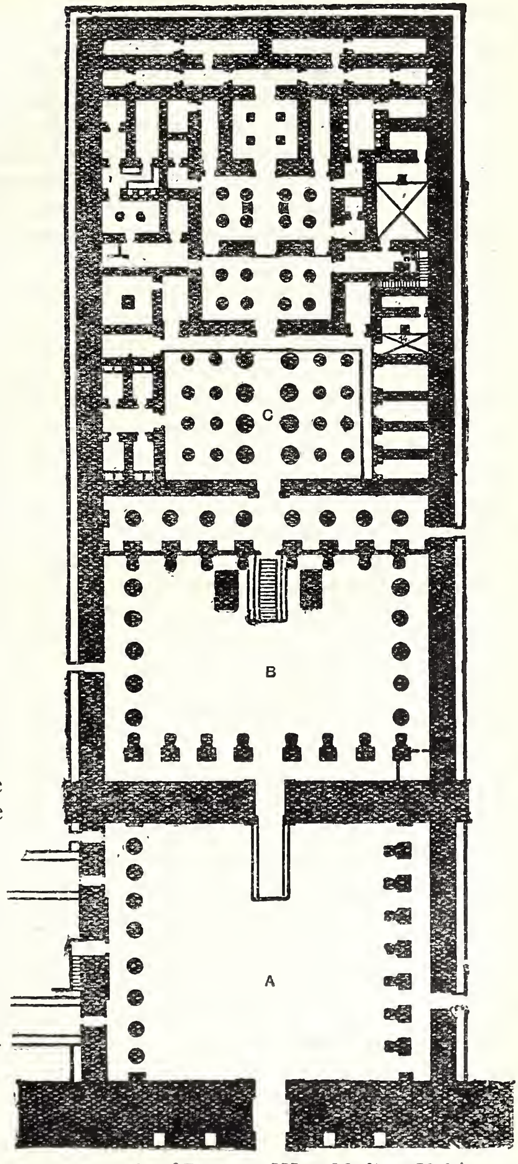
The **Pavilion of Rameses III** is a most interesting and instructive building, for it represents an attempt to reproduce in Egypt a small fort or strong city of the class with which the Egyptians must have become familiar in their campaigns against the Kheta and other allied peoples in Northern Syria. It seems to have been designed to take the place of a pylon, and to have been intended to add to the dignity and grandeur of the Great Temple of Rameses III, which lay beyond it. It was approached through an opening in the eastern side of the great unbaked mud brick wall, some 30 feet high and 30 feet thick, with which this king surrounded the temple buildings at Madînat Ḥabû. In front of the building was a stone crenelated wall, nearly 10 feet thick and 11 feet high, with a doorway nearly 5 feet wide, and in each side of this was a small room which served as a guard chamber. On the outside of these chambers are scenes representing Rameses III and Rameses IV making offerings to the gods. The pavilion consists of two large rectangular towers, about 26 feet wide, and, when complete, their height must have been about 72 feet; the distance between them is about 22 feet 6 inches. The walls behind them open out and form a small court, but they soon contract, and, becoming still narrower, at length the two wings of the building unite; in the portion where they unite is a door, above which are two windows. On each side of the stone walls which remain were a number of chambers built of brick, and it appears that these filled the whole of the thickness of the great mud brick wall which enclosed all the temple buildings. The wall of the front of the pavilion slopes backwards, and its lower part rests upon a low foundation wall which slopes rapidly. On the south tower are reliefs representing Rameses III clubbing his enemies in the presence of Harmachis, who hands him a sword. The peoples depicted here are the Ethiopians and the tribes that lived in the deserts to the west of the Nile; and those on the north tower are the Kheta, the Ameru, the Tchakari, the Shardana of the sea, the Shakalasha, the Tursha of the sea, and the Pulasta, *i.e.*, the sea-coast dwellers of Phœnicia and the neighbouring coasts and islands (?) The scenes on the towers represent the king

bringing his prisoners before Åmen-Rā, and the texts give the words spoken by the god and the king and the chiefs of the vanquished peoples. In the widest part of the space between the towers are scenes depicting Rameses III making offerings to the gods Ånḥer-Shu, Tefnut, Temu, Iusåāset, Ptaḥ, Sekhmet, Thoth, etc. On the walls farther in the king is being led to Åmen by Menthu and Temu, and he receives a crown from Åmen, while Thoth inscribes his name upon a palm-branch for long years of life. The entrance to the upper rooms was by a staircase in the south tower. The walls of the rooms are decorated with scenes in which the king is seen surrounded by naked women, who play tambourines, and bring him fruit and flowers, and play draughts with him.

The **Great Temple of Rameses III** is one of the most interesting of the funerary chapels on the western bank of the Nile at Thebes, and was built by this king to his own memory; its length is nearly 500 feet, and its width about 160 feet. The upper parts of the towers of the first pylon have neither texts nor sculptures, but the lower parts have both. The reliefs on both sides of the doorways are substantially the same. Here we see Rameses III clubbing a number of representatives of vanquished peoples, and near these are 86 captives with their names enclosed within ovals upon their bodies. It is clear from some of the names that the peoples here represented lived in Syria, Phœnicia, Cyprus, and parts of Africa. Here also is the god Thoth, who inscribes the king's name upon the leaves of a tree, probably a kind of acacia, for which the neighbourhood was in ancient days famous; and close by are Åmen, Mut, and Khensu, before whom the king kneels. The text on the north side is a poetical description of the king's conquest of the Libyans. To the right of one of the flag-pole channels, on the south side, is a stele, dated in the twelfth year of the king, in which his benefactions to the temples are extolled, and a speech of the god Ptaḥ is reported.

The door leading to the **First Court** is decorated with reliefs in which Rameses III is seen adoring various gods. The first court (A), which measures 111 feet by 136 feet, contains two porticoes: that on the right has seven rectangular pillars, in the front of each of which is a statue of the king, nearly 20 feet high, in the form of Osiris, and that on the left has eight columns. On the back of the pylon leading

into this courtyard the defeat of the Libyans and the triumph of the Egyptians are depicted; in one portion of the relief on the right side the hands of the dead are being cut off, and the numbers of men killed and mutilated, as well as lists of the spoil, are set forth with evident care. The accompanying text of course describes the battle, and the great valour of Rameses III. The seven rectangular pillars of the north portico are ornamented with battle scenes and representations of the king making offerings to the gods, etc.; in the statues the king has all the attributes of Osiris, and by the side of the legs are small statues of the sons and daughters of Rameses III. The eight columns with cup-shaped capitals of the south portico have each a double relief representing the king slaying prisoners in the presence of Amen-Rā or Menthu. On the north side of the face of the second pylon is a long



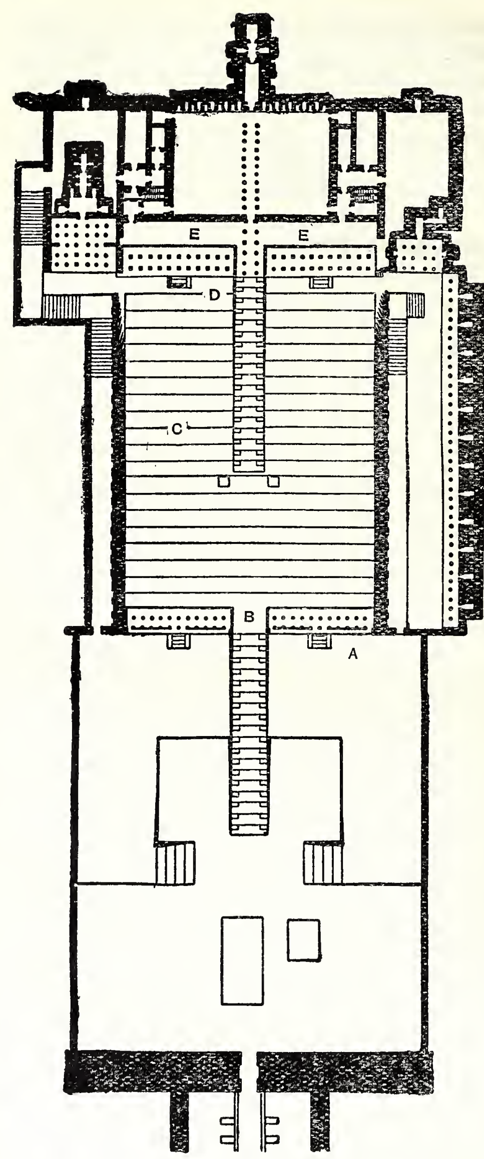
The Temple of Rameses III at Madînat Habû.

inscription recording the triumph of the king over some tribes of Western Asia, and on the south side are a representation of Rameses III reviewing his army, and battle scenes, etc. The **Second Court** (B) is about the same size as the first, and on each of the four sides is a portico; on the north and south sides the roof is supported by five columns with lotus capitals, and on the east and west sides by eight rectangular pillars, each of which had a statue of the king as Osiris in front of it. The walls on the **south-east** side are decorated with reliefs of battle scenes, among them being:—The Theban triad giving the king victory over the invaders of Egypt; defeat of northern tribes by the Egyptians; counting the hands (3,000!) cut off from dead enemies; Rameses leading three rows of captives; and captives being offered to Åmen; the accompanying text celebrates the king's victories. On the **north-east** side are representations of religious processions at the festival of Seker, the festival of Åmen, and the festival of Menu; these reliefs are of great interest. This courtyard was turned into a church by the Copts, who removed the middle column of the northern portico, and built an altar against the wall behind it. On the west wall are figures of a number of the king's sons. Passing into the **Hall of Columns** (C), it is seen that this part of the temple is not as well preserved as the First and Second Courts, for of the 24 columns which supported the roof only the bases remain. This damage is said to have been wrought by the earthquake of 27 B.C., and the portions of the overthrown columns were probably used by the Copts and Arabs to make stones for corn mills. This hall measures about 87 feet by 62 feet. On the walls are reliefs in which the king is seen making offerings of various kinds to the gods of Thebes. On the south side are five small chambers wherein the treasures of the temple were kept. After the Hall of Columns come two small chambers, each with eight columns; the first, the reliefs of which are destroyed, measures about 56 feet by 27 feet. On each side are a number of small chambers, the walls of which are decorated with mythological, astronomical, and other scenes, and some were clearly set apart for the service of special gods; in most of them are sculptured figures of the king adoring the gods. The spaces left hollow by the foundation walls, commonly called crypts, were often used as tombs. On the outside of the temple walls are series of reliefs which refer to—(1) Calendar of Festivals (*South Wall*); (2) Wars against the people of the Sûdân, etc. (*West Wall*); and (3) Wars

against the Libyans and peoples of Asia Minor (*North Wall and part of West Wall*). For a full account of the temple, *see* M. Daressy's excellent *Notice Explicative des Ruines de Mêdinet Habou*, Cairo, 1897. In 1916-17 the Metropolitan Museum of New York caused a series of important excavations to be made in the palace of Åmenhetep III, and brought a great many new facts concerning its plan and extent to light.

5. The **Temple of Queen Ḥatshepsut at Dêr al-Baḥarî*** was built in terraces on a wide open space, bounded at its further end by the semicircular wall of cliffs which divides this space from the valley of the Tombs of the Kings; it is approached from the plain on the western side of the river through a narrow gorge, the sides of which are honey-combed with tombs. It was called by the Great Queen "Tcheser Tcheseru," [hieroglyphs] *i.e.*, "Holy of Holies." At the end of the eighteenth century (1798) MM. Jollois and Devilliers visited it, and made a plan of the ruins then visible; they declared that the approach from the plain was by an avenue of sphinxes, and that the avenue was about 42 feet wide and 437 yards long, omitting to count a break of 54 yards; but they, apparently, did not know the building, which they imperfectly described, by the name it now bears, "Dêr al-Baḥarî," *i.e.*, the Northern Monastery. In 1827 Wilkinson made excavations on the site, and Lepsius seems to have done the same, but no serious clearance of the ruins was begun until Mariette began to work at them in 1858, in which year he uncovered the bas-reliefs which depict the Expedition to Punt. At an early stage in his labours he recognized that Ḥatshepsut's Temple was, like many another temple on the western bank of the Nile at Thebes, a funerary temple, and that it must be classed with buildings like the Ramesseum and the great temple at Madînat Habû. In other words, the temple of Dêr al-Baḥarî was a huge private chapel which was built by the great queen for the express purpose that offerings might be made to her *ka*, or "double," on the appointed days of festival, and to that of her father, Thothmes I.

* The correct transcription is, of course, "Baḥrî," but many natives insert the sound of a short *a* after the *ḥ* in this word, and few Europeans can pronounce the word at all correctly. The Arabic form of the word is بَحْرِيّ, fem. بَحْرِيَّة, and it means "northern."



The Temple of Ḥatshepsut at Dêr al-Baḥarî.

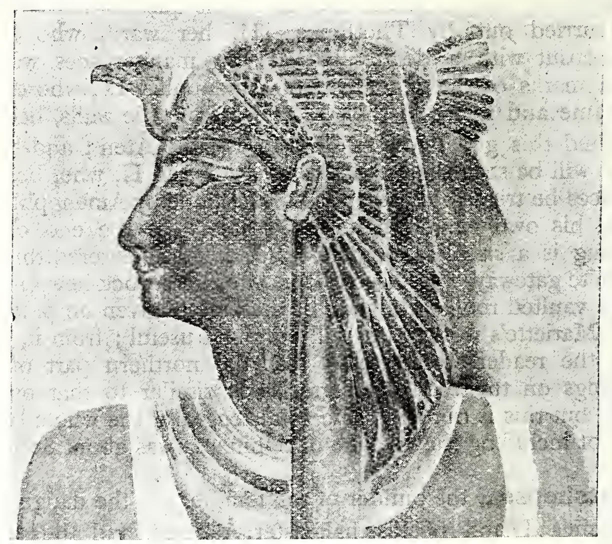
The site which she chose for the temple was holy ground, for ruins of a building, which was probably a funerary temple of **Menthu-ḥetep Neb-ḥept-Rā**, a king of the XIth dynasty, were found to the south-west of the open space on which the queen built her temple. The whole temple was surrounded by an enclosing wall, most of which has disappeared, and was approached by means of an avenue of sphinxes. It was entered through a pylon, in front of which stood two obelisks. Passing through this pylon the visitor, following the pathway, arrived at an incline which led to the raised colonnade of the Eastern Terrace (A). The bas-reliefs on its wall were protected by a roof (B), supported by one row of rectangular pillars, and by one row of polygonal pillars. From the centre of the platform (C) an inclined

plane or flight of steps led to the Western Terrace (D), and the face of the supporting wall was protected by a portico (E), formed by two rows of square pillars. At each end of the portico are rock-cut shrines, which are approached through a 12-columned portico, the roof of which is in perfect preservation. The Northern Shrine is decorated with religious scenes, and the Southern or Hathor Shrine, which is entered through a covered vestibule having pillars with Hathor-headed capitals, contains scenes relating to the rejoicings which took place at Thebes on the return of the queen's successful expedition to Punt. Everywhere will be seen the marks of the erasure of the queen's name which was carried out by Thothmes III, her ward, who hated Ḥatshepsut with a deadly hatred; in many places will be found marks of the vandalism of Amenophis IV, who erased the name and figure of the god Åmen from the walls, because he hated this god and preferred to worship Åten; and everywhere will be seen the cartouche of Rameses II, who, because in places he tried to repair the mischief done by Amenophis IV, added his own name wherever possible. At the end of the building is a small rectangular court, which is entered through a granite gateway, and directly opposite it is a rock-hewn shrine with a vaulted roof. The plan of the temple given on p. 424 is from Mariette's work,* and will be found useful; from it, however, the reader would think that the northern part of the buildings on the Western Terrace was similar to that on the south, but this is not so. The total length of the whole building, not including the Avenue of Sphinxes, was about 800 feet.

Ḥatshepsut, the builder of the temple, was the daughter of Thothmes I and of his half-sister Åāḥmes, and the granddaughter of Amenophis I and one of his wives; her father, however, had another wife, Mut-nefert, called Senseneb, who bore him a son, Thothmes II, who married Åset, or Isis, a woman of low rank, who bore him a son, Thothmes III. Ḥatshepsut was half-sister to Thothmes II and aunt to Thothmes III, and she became the wife of the former and the guardian of the latter, her step-son. The inscriptions on her temple record that she was associated with her father, Thothmes I, in the rule of the kingdom, and that she herself was enthroned at a very early age. From her childhood she is always represented in

* *Deir-el-Bahari*, Leipzig, 1877.

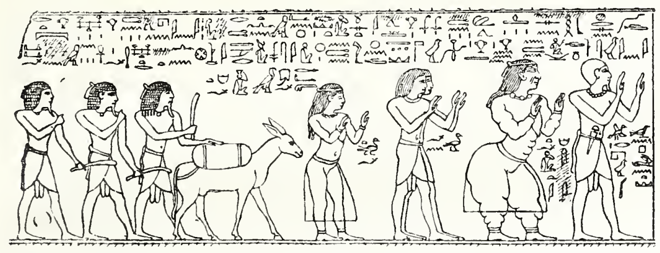
male attire, and in the inscriptions masculine pronouns and verbal forms are used in speaking of her, and masculine attributes, including a beard, are ascribed to her; only when considered as a goddess is she represented in female form. She reigned for about 16 years, and the chief event of her reign, omitting the building of the temple, was the famous **expedition to Punt,** a general name of the land on both sides of the Red Sea as far south as, and including, Somaliland. The queen sent five ships to the coast of Africa, and M. Maspero believes that they were sailed by their crews up the Elephant River, near Cape Guardafui, and made fast near one of the



Queen Ḥatshepsut.

native villages inland. Then followed the exchange of objects brought from Egypt for native produce, and the natives appear to have given large quantities of gold in return for almost valueless articles. The bas-reliefs which illustrate these scenes are found on the southern half of the wall which supports the Western Terrace, and it is easy to see that what the natives are giving to the Egyptians is both valuable and bulky. The chief of Punt, called Pa-rehu, with raised hands, wears a dagger in his belt; he is followed by his wife, a lady with a remarkable figure, who wears a single yellow garment and a

necklace, and by his two sons and a daughter. The drawing below illustrates this scene. The native products given by the Prince of Punt to the Egyptians consisted of aromatic woods, spices, incense, *ānti*, rare trees and plants, which were afterwards planted in the gardens of Åmen at Thebes, gold, etc.: these things were given to the Egyptians in such large quantities that their boats were filled with them, and they formed a very substantial offering to the god Amen. Among the gifts of the Prince of Punt were leopards, panthers, and other wild animals. Ḥatshepsut seems to have been a capable ruler and administrator, but the conquests of foreign lands during her reign were few. Her husband, Thothmes II, waged war against the nomad, raiding tribes of the Eastern Desert, and he conducted a campaign of considerable importance in Nubia ; he seems to



Pa-rehu, the Prince of Punt, his wife and his two sons, and a daughter.
(This portion of the relief was stolen from the temple, and has not been recovered.)

have died while he was comparatively young. After his death, Ḥatshepsut associated Thothmes III with her in the rule of the kingdom, but, as after her death he always obliterated her name from her temple, it seems that the relations between the rulers were not always happy. M. Naville thinks that Thothmes III hated Ḥatshepsut because her husband, Thothmes II, had not raised his (Thothmes III's) mother Åset to royal rank, and that he was jealous of his mother's honour ; Ḥatshepsut had no son, and she seems to have been obliged to associate Åset's son with her in the rule of the kingdom. Thothmes III seems to have married first Neferu-Rā, a daughter of Ḥatshepsut, and secondly another daughter of the great queen called Ḥatshepsut-meri-Rā. It would be unjust to the memory of a great man and a loyal servant of Ḥatshepsut if we omitted to mention the name of **Senmut**, the architect and overseer of works of Dêr al-Baḥarî. The tomb of this distinguished man is still to be seen. It is cut in a hill about a mile from the

temple, of which it commands a good view. There is little doubt now that he was influenced in the plan which he made by that of the temple of Menthu-ḥetep, but it says much for the good sense of the ablest woman who ever sat on the throne of Egypt, that she gave this distinguished architect the opportunity of building the unique and beautiful temple which has shed glory on the name both of the subject and of his great sovereign. The visitor to the temple of Dêr al-Baḥarî owes the ease with which he is able to visit every part of it to the labours of M. Naville, assisted by Mr. Hogarth, who spent three winters in clearing it at the expense of the Egypt Exploration Fund. An idea of the vastness of the work may be gleaned from the fact that in two winters the enormous amount of 60,000 cubic metres of rubbish and stones was removed from the site and carried away to a distance of 200 yards. This temple now presents a striking appearance, whether seen from the Luxor or Ḳûrnah side, and every visitor will much appreciate the excellent results which have attended the completion of the undertaking.*

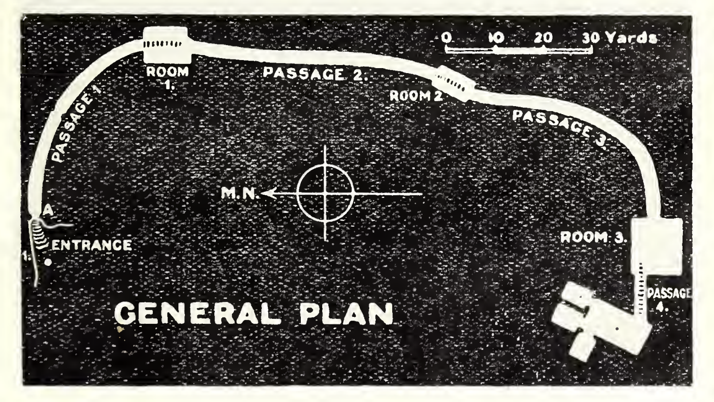
Archæologists will be interested to know that the newly found fragments of the wall upon which the expedition to Punt is depicted all agree in pointing to the eastern side of Africa as the country which the Egyptians called Punt; some of the animals in the reliefs are identical with those found to this day on the Abyssinian coast, and the general products of the two countries are the same. Punt was famous for its ebony, and all tradition agrees in making Abyssinia, and the countries south and east of it, the home of the ebony tree. The tombs at Dêr al-Baḥarî were opened many, many years ago, and a very large number of the coffins with which Mariette furnished the first Egyptian Museum at Bûlâk came from them; since that time the whole site has been carefully searched by diggers for antiquities, hence comparatively few antiquities have been unearthed by M. Naville. In the course of the work he discovered an interesting mummy pit, and in a small chamber hewn in the solid rock, about 12 feet below the pavement, he found three wooden rectangular coffins (each containing two inner coffins), with arched lids, wooden hawks and jackals, wreaths of flowers, and a box containing a large number of *ushabtiu* figures. These coffins contained the mummies of a priest called Menthu-

* M. Naville's description of the temple has been published under the title, *The Temple of Deir el-Bahari*, 5 parts, with a quarto volume, London, 1894–1908.

Teḥuti-àuf-ānkh, and of his mother, and of his aunt; they belong to the period of the XXVIth dynasty, or perhaps a little earlier.

During the last days of the excavations at Dêr al-Baḥarî M. Naville's workmen came upon a very interesting "foundation deposit," which they discovered in a small rock-hewn pit. It consisted of fifty wooden hoes, four bronze slabs, a hatchet, a knife, eight wooden models of adzes, eight wooden adzes with bronze blades, fifty wooden models of an implement of unknown use, ten pots of alabaster, and ten baskets; above these were a few common earthenware pots, and over all were some mats. All the objects bear the same inscription, *i.e.*, the prenomen and titles of Queen Ḥatshepsut.

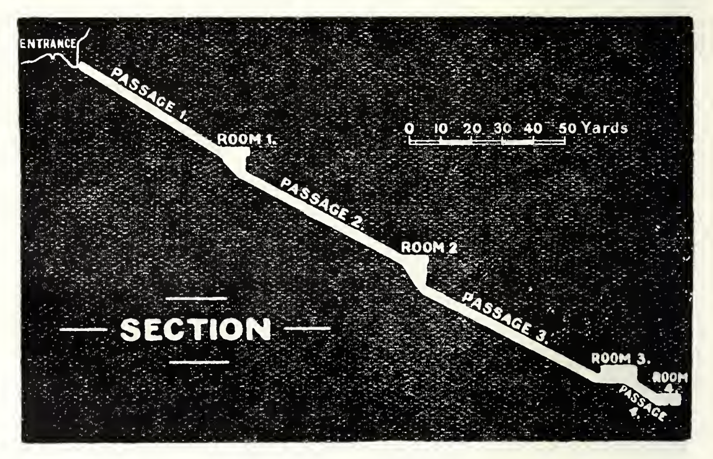
6. The **Tomb of Ḥatshepsut.**—The great interest which attaches to the name of this queen, and the romantic circum-



The Tomb of Ḥatshepsut.

stances under which she lived and reigned, have induced many to endeavour to discover her mummy and her tomb, and during his excavations M. Naville kept this object steadily before him. Good fortune, tenacity of purpose, and a lavish but enlightened expenditure of money, gave the clue to the well-known American archæologist, Mr. Theodore M. Davis, and this gentleman, having overcome difficulties of a more than ordinary character, early in 1904 declared that he had found the tomb of the Great Queen. He was assisted in his work by Mr. Howard Carter, one of the two English Inspectors of Egyptian Antiquities, who superintended the excavation operations. An account of the works and the discovery of the tomb appeared

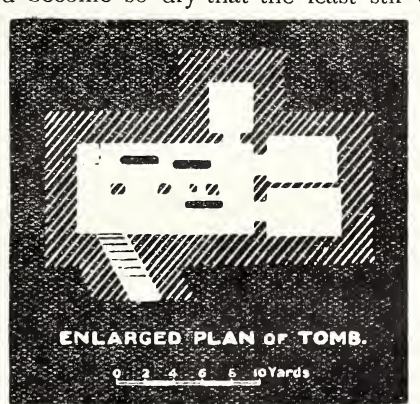
in *The Times* of March 14th, 1904. The account of the excavation and clearing of the tomb is best given from Mr. Davis's *Introduction* to his publication on the tomb. The tomb was probably opened by the priests about 900 B.C., and the contents taken out and concealed in the tomb generally known as the "cachette" near Ḥatshepsut's temple at Dêr al-Baḥarî. The entrance door of the tomb was open in the time of Strabo, and Napoleon's Expedition cleared out about 80 feet of the corridor in 1799. In 1844 Lepsius cleared the corridor for about 140 feet, and then abandoned it. In March, 1903, Mr. Davis caused all the ground near the tomb to be



The Tomb of Ḥatshepsut.

cleared, and shortly after this work was started his men came upon a spot directly before the door of the tomb which yielded a hollow sound, and which, upon excavation, proved to be a small pit cut in the solid rock, which contained models of objects used in making the tomb, such as bronze tools, alabaster vases, reed mats, magic symbols, bread, fringed mummy cloth, napkins, etc., many of them bearing the cartouche of Ḥatshepsut. Shortly afterwards he undertook the exploration of this corridor for the benefit of the Cairo Museum, under the direction of Mr. Howard Carter. The corridor proved to be 692 feet long, and 320 feet vertically deep, and the entire length was filled to the roof with small

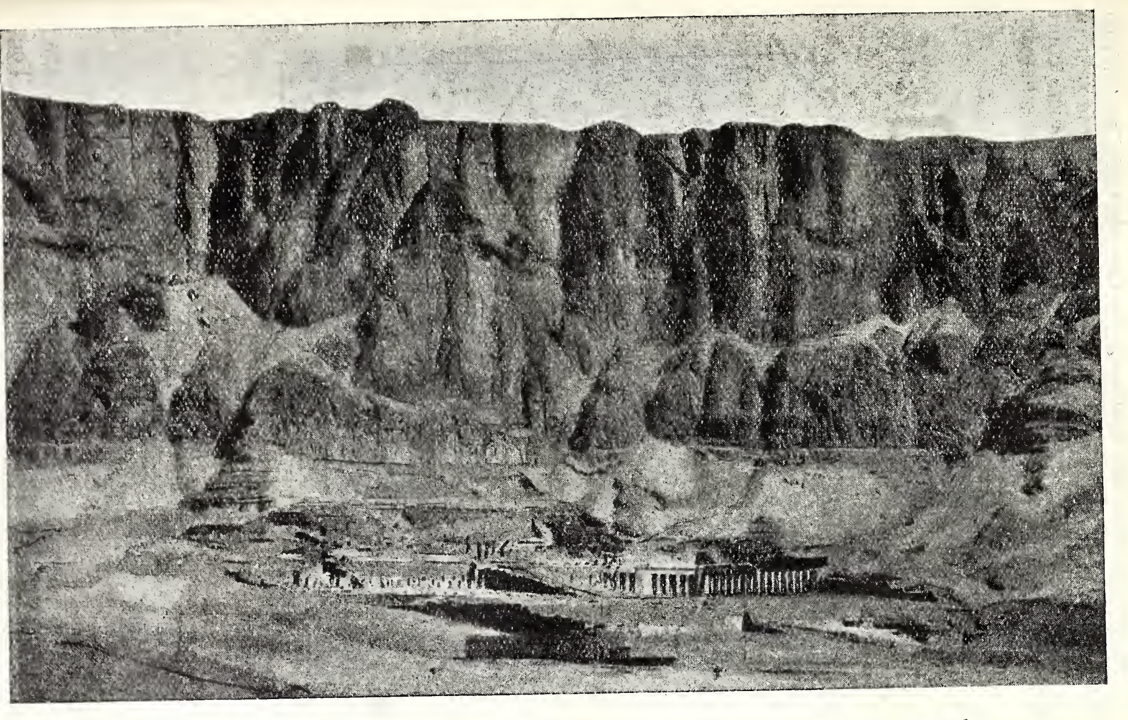
stones. In places these stones had become cemented together and the pickaxe had to be used in making a passage. In places the ceilings of the corridors and chambers, which measured 26 feet by 23 feet by 6 feet 6 inches, had fallen in. Having tunnelled through a chamber full of blocks and small stones Mr. Davis found the mouth of a descending corridor. Long before this was reached, however, the air was so bad and hot that the candles melted and the men could not see to work. Electric lamps were then installed, but as soon as a depth of about 165 feet was reached, the air became so foul that the men could not work. In addition to this, the bats of centuries had built innumerable nests on the ceilings of the corridors and chambers, and their droppings had become so dry that the least stir of the air filled the corridors with a fluffy black stuff, which choked the noses and mouths of the men, rendering it most difficult for them to breathe. An air suction pump was then installed, with a zinc pipe, which, before the burial chamber was reached, extended about 692 feet. When the burial chamber was reached, it was found to be filled with small stones and the *débris* of the ceilings, and it took a month to clear it out. To appreciate the difficulties of the work, it must be remembered that all the *débris* found in the tomb was carried on the heads of men and boys from the lowest chamber to the mouth of the tomb, a distance of 33 feet to 692 feet, including an ascent of 3 feet to 320 feet. Polished limestone blocks inscribed with extracts from the Book "Åm Ṭuat" were found in the burial chamber, and these, it seems, were intended to line the walls. In the burial chamber two sarcophagi were found; one for Ḥatshepsut, and one for her father Thothmes I. Doubtless she had his body transferred from his tomb, where a sarcophagus of his already was, to hers, and placed in the new sarcophagus, where it probably



The Tomb of Ḥatshepsut.

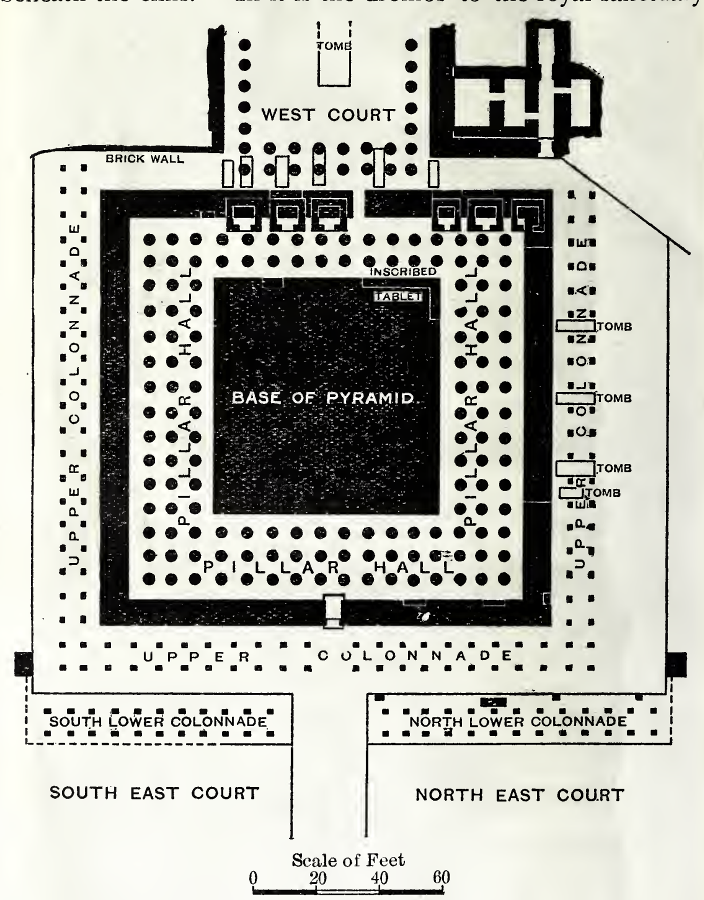
remained until about 900 B.C., when, during some great crisis in the affairs of Thebes, the priests, thinking it wise to remove the bodies of many of the kings from their tombs in the valley, and to hide them in a safer repository, moved the contents of Ḥatshepsut's tomb to the tomb where the great "find" of royal mummies was made in 1881 near the queen's temple at Dêr al-Baḥarî. The "find" included the body of Thothmes I, an ornamental box bearing the names and titles of Ḥatshepsut, and containing a mummified liver, and also two female bodies stripped of all covering and without coffins or inscriptions. Mr. Davis records his conviction that the body of Ḥatshepsut was moved with that of Thothmes I from her tomb to the "cachette," and thinks that the logic of the situation justifies the conclusion that one of the two unidentified female bodies is that of the great Queen Ḥatshepsut.

7. The **Temple of Menthu-Ḥetep Neb-ḥept-Rā.**—The ruins of this temple lie to the south of Ḥatshepsut's temple of Dêr al-Baḥarî, and are of special interest; they were excavated by Professor **E. Naville,** on behalf of the **Egypt Exploration Fund,** in the years 1903 to 1906; his chief assistant was Mr. H. R. Hall. Other assistants were Mr. E. R. Ayrton, Mr. H. Garnett-Orme, Mr. C. T. Currelly, Mr. M. D. Dalison, and Mr. Dennis. The temple of Neb-ḥept-Rā (☉ 𓎟 𓊹) is the most ancient shrine yet discovered at Thebes, and it was built about 2500 B.C. It had been known for several years that a temple of the XIth dynasty existed at Dêr al-Baḥarî, for Messrs. Mariette, Maspero, and Brugsch Pâshâ had found objects there inscribed with the king's prenomen, but none of these investigators either knew where it was exactly, or made any excavations with the view of discovering it. The precise site, size, and nature of the temple were not known until 1903, and as no objects have been found there of a period later than the time of the kings Rameses, it is safe to assert that the site had not been disturbed since about 1200 B.C. The general plan of the building of Menthu-ḥetep may be thus described. A platform was cut out of the living rock to the south of the temple built by Ḥatshepsut, and on this was built the royal pyramid. A colonnade and wall ran round all four sides of it. Outside the wall was a second colonnade, portions of which have now disappeared. A flight of steps, or ramp, with a small



The Temple of Ḥatshepsut as excavated by Prof. Naville for the Egypt Exploration Fund.

colonnade, formed the approach to the platform on the east side. To the north and south were courts, and at the western end "the platform was narrowed into a colonnaded court beneath the cliffs." In it is the dromos to the royal sanctuary



Plan of the Temple of Menthu-ḥetep at Dêr al-Baḥarî.
(After the plan by C. R. Peers.)

of the king's Ka, or "double." Immediately under the cliffs is a transverse hypostyle hall, with a small sanctuary. The whole building was surrounded by a temenos boundary, and a high wall of limestone flanked it for some distance on the north

and south sides. The great forecourt containing the ramp was provided with a low brick wall. The pyramid was called ÅAKHU-ÅSUT . To the west of the pyramid was a row of six chapels, which were used in connection with the tombs of certain royal wives who were buried in rock-hewn shafts on the platform to the west and north of the walls and the chapels.*

The Cow of Hathor.—In February, 1906, Professor Naville discovered a small chapel, about 10 feet long and 5 feet wide,



The temples of Menthu-ḥetep (A) and Ḥatshepsut (B) at Dêr al-Baḥarî.
(From a photograph by H. R. Hall, Esq.)

which was wholly covered with painted sculptures. The roof is vaulted, and is painted blue, and strewn with stars in yellow. In this chapel stood a beautifully formed cow, in limestone, painted reddish brown with black spots. The head, horns, and flanks bore traces of having been overlaid with gold. The cow is supposed to be standing among reeds, grass, and flowers, and

* For full information about the temple of Menthu-ḥetep, and descriptions of the objects found in the course of its excavation, *see* Naville-Hall-Ayrton, *The XIth dynasty Temple at Deir el-Bahari*, Part I, London, 1907.

these reach up to her neck; she is in the attitude with which all are familiar from the vignette in the last section of the Ani Papyrus. On her head she wears the head-dress of Hathor, *i.e.*, the lunar disk and two feathers. No cow of such beautiful workmanship and such size has hitherto been discovered, and it is probably the first time that a goddess has been found undisturbed in her sanctuary. Beneath her is a kneeling figure of the king as a boy, whom she is suckling, and standing under



Cow of Hathor. (From a photograph by E. Brugsch Pâshâ.)

her head we see the king as a grown-up man. Behind the head of the cow is the cartouche of Ȧmen-ḥetep II, the son of Thothmes III, whose sculptures cover the walls. The authorities in Cairo were at once informed of this important discovery, and soldiers arrived the same night to guard the "find." As soon as possible both the cow, symbol of Hathor, and her shrine were removed to Cairo, and the monument has been established in a suitable place in the Museum.

The **Subterranean Sanctuary at Dêr al-Baḥarî.**—The account of the clearing out of this Sanctuary and the corridor which leads to it is best given in the words of Prof. Naville the discoverer:—

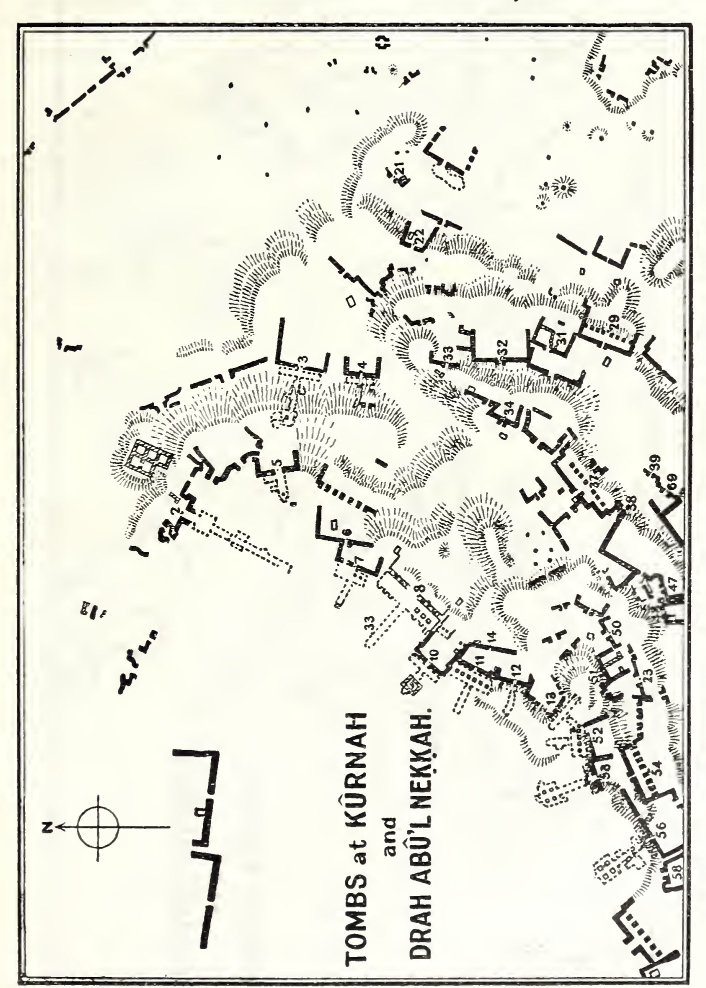
"In the open court of the temple of Menthu-ḥetep which we reached in "1906 we stopped at the entrance of a sloping passage extending down "below the pavement, and the door of which was obstructed by heaps of "enormous stones and rubbish. We left the clearing of it for 1907, and "we entered it at the end of March. It is a well-cut rock tunnel, which "goes down quite straight for about 500 feet. On more than half of its "length it is vaulted: two sandstone blocks leaning against each other at "the top, and cut in the form of an arch, rest on the rock and on walls of "dry stones erected on both sides. Except at the entrance, where there "was a pile of stones, the passage was free. Between the two walls there "was a path sufficiently wide for a man to go down. At the end of the "tunnel there is a room of granite made of big blocks extremely well "joined, like the chambers in the pyramids. The door was blocked by a "stone. One might have expected that this chamber was a tomb, but it "seems clear that it had a different purpose. The greatest part of it is "occupied by a great alabaster shrine, made of large blocks of that "beautiful stone. Except a cornice and a moulding, it has no sculpture "or ornament of any kind. The ceiling is made of an enormous mono-"lithic red granite slab, over which comes again alabaster. This shrine "was empty except for a few well-cut black granite stones, which were "part of a casing inserted between the shrine and the walls of the chamber. "In my opinion this shrine was a sanctuary; it was the abode of the *ka*, "as the Egyptians called the double or the image of the King, which was "represented by a statue now destroyed. In front of the shrine there was "a heap of broken wooden figures, fragments of furniture, and a quantity "of cloth in which must have been wrapped offerings, or perhaps "mummified animals, also a few small pieces of bones said to be human. "But there was no trace of a wooden or stone coffin, no definite evidence "of a burial. That is the reason why I consider this shrine as a sanctuary. "This agrees with a decree found on a large stele at the entrance of the "passage, in which a successor of Menthu-hetep, of the following dynasty, "orders that for what he calls 'the cave of Menthu-ḥetep' should be provided "every day food and drink, and whenever a bull should be slaughtered in "the great temple of Amon, roast meat should be brought to that cave. "These offerings are those of a god or of the King adored as such; they "are not funerary. It must have been a place where priests had frequently "to descend, since an arch was made over the passage evidently after the "chamber and shrine had been finished. There would have been no "reason for arching a passage leading to a closed funereal chamber. The "shrine, which is 11 feet long, 7 feet wide, and 8 feet high, is striking by "its fine architecture, and the beautiful material out of which it is made. "It would be extremely difficult to remove it to a museum. It would be "an expensive work, also somewhat dangerous. Besides, in a large hall "it would by no means produce the same effect as it does in its subter-"ranean granite chamber. It will remain for the present in its deep "hiding place. The passage will be closed by a door, so that people "specially interested in Egyptian architecture may reach it; for it is not "advisable for tourists to go in, nor would they much enjoy it. As it is, it

"has added a new feature to the temple of the XIth dynasty, which has "been so rich in unexpected architectural discoveries. The platform, the "pyramid issuing out of a colonnade, the hypostyle hall, the subterranean "sanctuary, form a whole of a nature quite unique among Egyptian "temples." (*Times*, April 9th, 1907.)

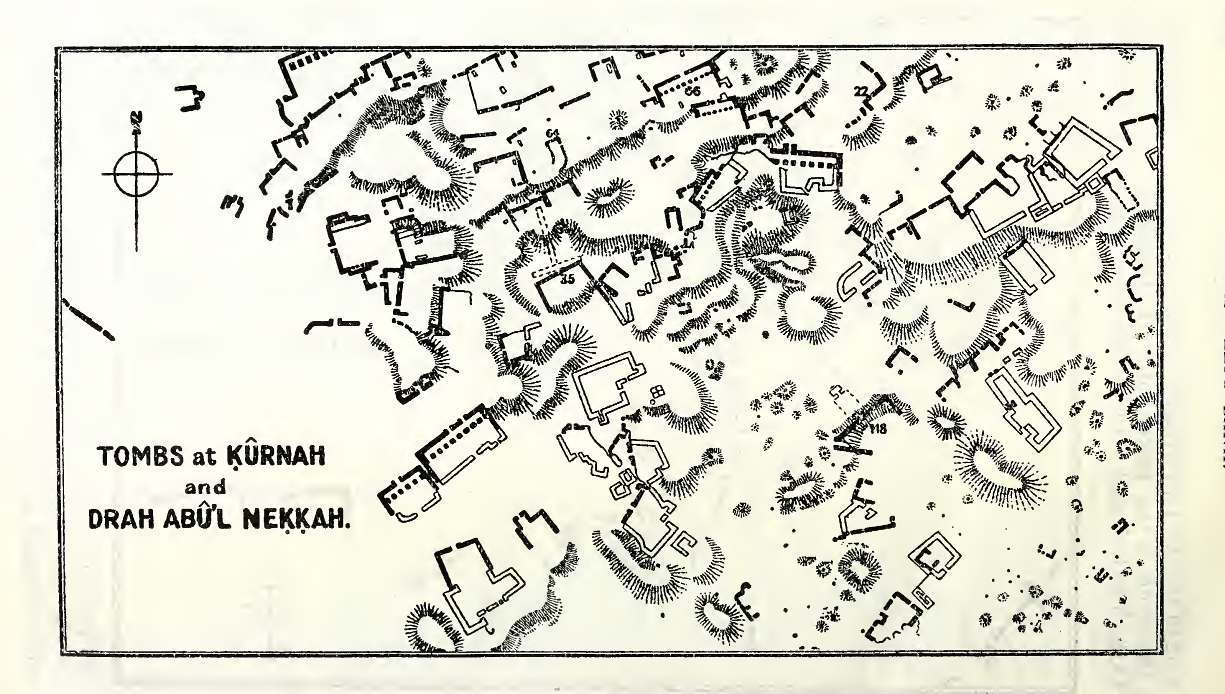
8. Dêr al-Madînat.—The temple built in this place owes its name to the Coptic Dêr, or Monastery, which stood near here when Thebes was the home of a flourishing Coptic community, and was dedicated to Saint Paul of Pikolol, of whom, however, nothing is known. The monastery must have contained a society of considerable size, for it is said to have possessed *two* stewards. The small Egyptian temple which stands between the Colossi and Madînat Habû, was begun by Ptolemy IV, Philopator, and continued by Ptolemy VII, Philometor, and finished by Ptolemy IX, Euergetes II. It is built of the ordinary sandstone of the district, and though in many respects it resembles most of the funeral temples built by the Ptolemies, it is a beautiful little example of its class. It appears to have been dedicated to more than one of the goddesses of the underworld, but Hathor was regarded as its tutelary deity. The capitals of some of the columns are Hathor-headed, and over the doorway of the large chamber are the heads of the Seven Hathors, who, in their forms of cows, supplied the deceased with food in the underworld. In one of the chambers is a relief representing the Judgment Scene, which forms the Vignette of the CXXVth Chapter of the *Book of the Dead*. The chief interest of the scene here is that it proclaims the nature of the building, and proves how anxious the Ptolemies were officially to adopt and to maintain the principal religious views of the Egyptians. The temple was much visited by travellers in ancient times, as the number of names written on the walls testify, and by both Greeks and Copts it was regarded as very holy.

9. The principal cemeteries at Thebes are:—(1) **Drah Abu'l-Nakkah**, which lies between the Temple of Seti I and the Temple of Dêr al-Baḥarî. Tombs weremade here under the Ancient Empire, and many objects of the VIth dynasty have been recovered from them. It was a favourite burial ground under the Middle Empire, and many officials of the XIth, XIIth, and XVIIIth dynasties were buried here. The coffins of the Ȧntef kings (XIth dynasty), now in the Louvre and British Museum, were discovered here, and here was made the marvellous "find" of the jewellery of Ȧāḥ-ḥetep, wife of Kames,

a king of the XVIIth dynasty, about 1650 B.C. A little more to the south is the **necropolis of Asasîf,** where during the XIXth, XXIInd, and XXVIth dynasties many beautiful tombs



were constructed. Most of the tombs are in a ruined state and do not repay a visit. (2) **Shêkh 'Abd al-Kûrnah,** which contains a large number of important tombs, chiefly


TOMBS at ḲÛRNAH
and
DRAH ABÛ'L NEḲḲAH.
35
118

of the XVIIIth dynasty. (3) **Ḳurnat Murrai,** which contains the tombs of the queens, and the tombs of many of the officials of the XIXth and XXth dynasties. The tombs of **Shêkh 'Abd al-Ḳûrnah** are extremely interesting, for in many of them are depicted events which took place under the rule of the greatest of the kings of the XVIIIth dynasty, and they illustrate scenes in the public and private life of some of the officials who played a prominent part in the development of Theban conquest and civilization. The tombs in their leading features resemble each other, and there is at times a sameness in the subjects represented, and even in the treatment of them. The scenes depicted comprise representations of agricultural operations, of the amusements of the deceased, of festivals and banquets, of official functions in which the deceased played a prominent part—*e.g.*, in the receipt of tribute from vassal nations, and of funeral rites and ceremonies. The scenes are usually painted in *tempera* upon a thin layer of white plaster laid upon the bedding of mud, or perhaps very poor dark-coloured mortar, with which the limestone slabs that formed the walls were covered. Among such tombs may be specially mentioned :—

(1) The **Tomb of Rekhmàrā** (No. 35 according to Wilkinson, and No. 15 according to Champollion), which is situated in the hill behind the Ramesseum called Shêkh 'Abd al-Ḳûrnah ; it is one of the most interesting of all the private tombs found at Thebes. The scenes on the walls represent a procession of tribute bearers from Punt carrying apes, ivory, etc., and of people from parts of Syria and the shores of the Mediterranean bringing gifts consisting of the choicest products of their lands, which Rekhmàrā receives for Thothmes III. The countries can in many cases be identified by means of the articles depicted. The scenes in the inner chamber represent brick-making, rope-making, smiths' and masons' work, etc., superintended by Rekhmàrā, prefect of Thebes ; elsewhere are domestic scenes and a representation of Rekhmàrā sailing in a boat, lists of offerings, etc.

(2) **Tomb of Nekht.**—This beautiful little tomb was opened out in the year 1889, but there is little doubt that it was known to the inhabitants of Ḳûrnah some time before. Though small, it is of considerable interest, and the freshness of the colours in the scenes is unusual ; it is, moreover, a fine example of the tomb of a Theban gentleman of the Middle Empire. As the paintings and inscriptions are typical of their

class, they are here described at some length. The tomb of Nekht consists of two chambers, but the larger one only is ornamented; the ceiling is painted with a wave pattern, and the cornice is formed of the *khakeru* pattern [hieroglyphs]. On the left end wall a granite stele is painted, with inscriptions containing prayers for funeral offerings, etc. On the upper part of the stele the deceased Nekht and his sister and wife Taui, a lady of the College of Åmen, are represented sitting before a table of offerings; the inscription reads: "A coming forth "always to the table of the lords of eternity every day, to the "*ka* of the temple servant, Nekht, triumphant, and to his sister, "the lady of the house, triumphant!" On the right of the stele are:—(i) Kneeling figure of a man offering [hieroglyph], and the legend, "the giving of beer to the scribe Nekht." (ii) Kneeling figure of a man offering two vases [hieroglyphs], and the legend, "The giving of a vase of wine to Osiris the temple-"servant, the scribe Nekht. Thou art pure, Set is pure." (iii) Kneeling figure of a man offering [hieroglyphs], and the legend, "The giving of linen bandages to Osiris, the scribe Nekht." On the left of the stele are:—(i) Kneeling figure offering [hieroglyph], [hieroglyph], etc., and the legend "The giving of holy offerings to the "scribe Nekht." (ii) Kneeling figure of a man offering [hieroglyphs], and the legend, "The giving of a vase of water to the double "of Osiris, the temple-servant of Åmen, the scribe Nekht, "triumphant! Thou art pure, Horus is pure." (iii) Kneeling figure of a man offering [hieroglyphs], and the legend, "The giving of "fresh unguents and eye-paint to the scribe Nekht, triumphant!"

Beneath the stele is shown a pile of funereal offerings consisting of fruits and flowers, bread and cakes, ducks, haunches of beef, etc.; on each side is a female wearing a sycamore, the emblem of the goddess Hathor, upon her head, and holding offerings of fruit, flowers, etc., in her hands, and behind each is a young man bringing additional offerings. The scene on the wall at the other end of the chamber was never finished by the artist. In the upper division are Nekht and his wife Taui seated, having a table loaded with funereal offerings before them; a priestly official and the nine *smeriu* bring offerings of oil, flowers, etc. In the lower division also are

Nekht and his wife Taui seated, having a table of offerings before them, and four priestly officials are bringing haunches of veal or beef to them. On the wall to the left of the doorway leading into the smaller chamber are painted the following scenes connected with agriculture:—1 An arm of the Nile or a canal—on one side are two men ploughing with oxen, and labourers breaking up hard sods with mallets, while a third scatters the seed; on the other are seen men digging up the ground with hoes, and the sower sowing seed. At one end sits the deceased Nekht in the *seḥ* hall, , and at the other is a tree having a water-skin on one of the branches, from which a man drinks. 2. Men reaping, a woman gleaning, men tying up sheaves in a sack, women twisting flax. 3. The measuring of the grain. 4. Winnowing the grain. Above the head of Nekht, who sits in a *seḥ* chamber, is the inscription:— "Sitting in the seḥ seeth his fields the temple-servant of "[Åmen, Nekht], triumphant before the great god."

On the left of the agricultural scenes stands Nekht pouring out a libation over an altar loaded with all manner of funereal offerings; behind him is his wife Taui holding a *menȧt* emblem of joy and pleasure, in her right hand, and a sistrum in her left. Beneath the altar two priests are sacrificing a bull. The inscription above the whole scene reads:— "Offering of things all beautiful, pure, bread, beer, oxen, ducks, "heifers, calves, to be made upon the altars of . . . . . . "Harmachis to Osiris, god great, and Hathor, president of the "mountain of the dead, to Anubis upon his mountain by the "temple-servant . . . . . Nekht. His sister, his darling, of "the seat of his heart, the singing priestess of [Åmen, Taui, "triumphant!]"

On the wall to the right of the doorway leading into the smaller chamber are painted the following scenes: Upper register; Nekht in a boat, accompanied by his wife and children, spearing fish and bringing down birds with the boomerang in a papyrus swamp. Above is the inscription:—"Passeth "through wild-fowl marshes, traverseth wild-fowl marshes with "gladness, speareth fish Nekht, triumphant!" On the bank stand two of Nekht's servants holding sandals, staff, boomerang, etc., and beneath is another servant carrying to Nekht the birds

which Nekht himself has brought down. The inscriptions above read :—(i) " Rejoiceth, seeth happiness [in] making the chase, " [and] in the work of the goddess Sekhmet, the friend of the " lady of the chase, the temple-servant, the scribe Nekht, " triumphant !" (ii) " His sister, the singing priestess of " [Åmen], the lady of the house, Taui, saith, ' Rejoice thou in " ' the work of Sekhmet, [and] the birds [which] he setteth apart " ' for his selection.' " (iii) " Rejoiceth, seeth happiness in the " produce of the fields of the land of the north, the temple- " servant the scribe Nekht, triumphant !"

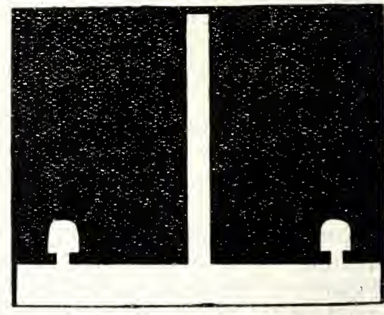
Lower register: Nekht and his wife sitting in a summer-house " to make himself glad and to experience the happiness " of the land of the north " (*i.e.*, Lower Egypt); before them funereal offerings are heaped up. In the upper division of this register are seen Nekht's servants gathering grapes, the treading of the grapes in the wine-press, the drawing of the new wine, the jars for holding it, and two servants making offerings to Nekht of birds, flowers, etc. In the lower division we see Nekht instructing his servants in the art of snaring birds in nets, the plucking and cleaning of the birds newly caught, and two servants offering to Nekht fish, birds, fruit, etc. In the other scenes we have Nekht, accompanied by his wife Taui, making an offering of *ānta* unguent and incense to the gods of the tomb, and a representation of his funereal feast.

Other sepulchres worthy of a visit are :—

1. The tomb of **Amsu** (or **Menu**) **-nekht,** [hieroglyphs], an overseer of granaries.

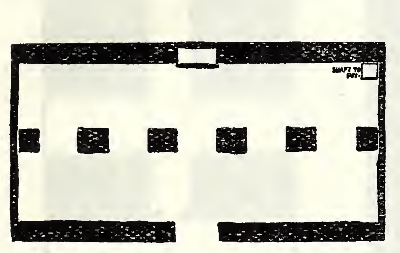
2. The tomb of **Sen-nefer,** an official of Åmen-ḥetep II, and an important member of the brotherhood of Åmen.


Plan of the Tomb of Amsu (or Min) -Nekht.

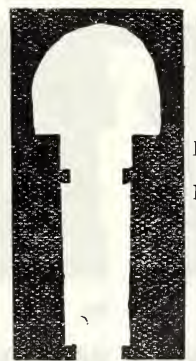

Plan of the Tomb of Rā-men-kheper-senb.

3. The tomb of **Rā-men-kheper-senb**, high priest of Åmen under Thothmes III.

4. The tomb of **Peḥ-su-kher**.



Plan of the Tomb of Peḥ-su-kher.



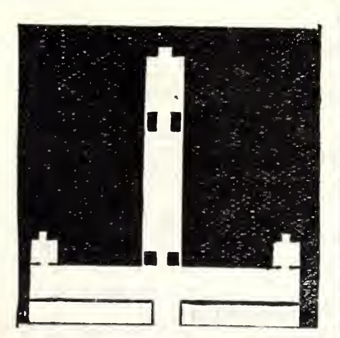
Plan of the Tomb of Mentu-ḥer-khepesh-f.

5. The tomb of **Mentu-ḥer-khepesh-f**, a prince and chancellor.

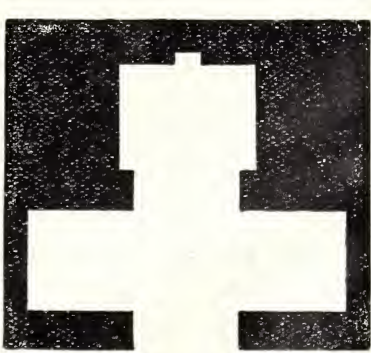
6. The tomb of **Åmu-netcheḥ**, a high official of Thothmes III.

7. The tomb of **Māi**.

8. The tomb of **Nefer-ḥetep**, a divine father of Åmen under Ḥeru-em-ḥeb.



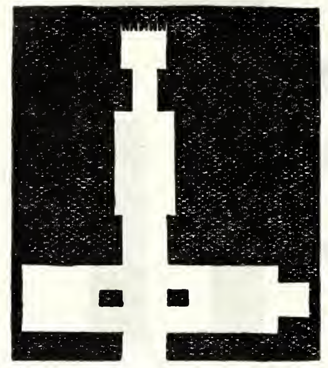
Plan of the Tomb of Åmu-netcheḥ.



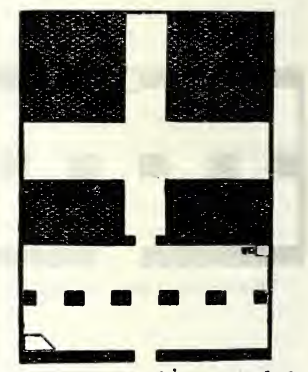
Plan of the Tomb of Māi.

9. The tomb of **Khā-em-ḥat,** , an official of Åmen-ḥetep IV.

10. The tomb of **Åmen-em-ḥeb,** , one of the generals of Thothmes III.



Plan of the Tomb of Nefer-ḥetep.



Plan of the Tomb of Åmen-em-ḥeb.

11. The tomb of **Ḥeru-em-ḥeb,** , the chancellor of Thothmes IV.

12 (No. 45). The tomb of **Teḥuti-em-ḥeb,** , an inspector of workers in linen; it was discovered and cleared out by Mr. R. Mond.

13 (No. 46). The tomb of **Rāmes,** , XVIIIth dynasty.

14 (No. 47). The tomb of **Userḥat,** , a temple official in the reign of Åmen-ḥetep III. It originally contained a good portrait of Queen Ti.

15 (No. 49). The tomb of **Åmen-ḥetep,** , a priest of the tomb of King Åmen-hetep I.

16 (No. 51). The tomb of **Userḥat,** , XIXth dynasty.

17 (No. 53). The tomb of **Åmenemḥat,** , XVIIIth dynasty.

18 (No. **54**). The tomb of **Ḥui**, [hieroglyphs], XIXth dynasty.

19 (No. **55**). The tomb of **Rāmes**, [hieroglyphs], commonly known as **Stuart's Tomb.** The reliefs in this tomb are of considerable interest. Late XVIIIth dynasty.

20 (No. **56**). The tomb of **Userḥat**, [hieroglyphs]. A few fine paintings.

21 (No. **60**). The tomb of **Ȧntef=ȧqer**, [hieroglyphs], XVIIth dynasty.

22 (No. **69**). The tomb of **Mennȧ**, [hieroglyphs], contains some remarkably fine paintings, XVIIIth dynasty.

23 (No. **71**). The tomb of **Senmut**, [hieroglyphs], a high official of Queen Ḥatshepsut.

24. The **Gold Tomb**. This tomb, so called because of the "find" of jewellery made in it by Mr. Theodore M. Davis, is at the north side of the mound of rock which contains the tomb of Rameses VI. At a depth of 33 feet from the surface a doorway opens into a large room 25 feet long, which contained, when first found, a layer of mud 3 feet 6 inches in depth; when this was removed layer by layer a quantity of valuable jewellery was found near the west wall. Among these may be mentioned: 1. **Gold crown** with ornaments in the form of flowers, whereon are cut the cartouches of **Seti II** [cartouche], [cartouche], and the name of Queen **Ta=usert** in a cartouche [cartouche]. 2. Pair of gold ear-pendants on which are cut the cartouches of Seti II. 3. Parts of a gold necklace, *utchats*, shells, flies, amulets, etc., in gold. 4. Pair of gold bracelets, gold rings, etc.* Mr. Davis's discovery shows that Queen Ta-usert married first Sa-Ptaḥ, the successor of Ȧmen-meses, and that on his death she married her husband's successor, Seti II, and transferred her rights to her new husband.

* A full description of the jewellery is given by Davis and Maspero in *The Tomb of Siphtah*, London, 1908.

During the winters of 1902–1904 Mr. Robert Mond cleared out and repaired, at his own expense, a number of the tombs of officials who flourished under the XVIIIth and XIXth dynasties; among these may specially be mentioned the tombs of Qen-Ȧmen, Sen-nefer, Menna, Rā-men-kheper-senb, Khā-em-ḥat, Userhat, a priest, Teḥuti-em-ḥeb, a baker, and the mummy pits of User and Ȧmen-mes. He also began to excavate some tombs of the XIth dynasty, which lie between Dêr al-Madînah and Dêr al-Baḥarî. His work at Thebes may be thus summarized. He began to work at the end of December, 1902, and, first of all, cleared out the tomb of Rā-men-kheper-senb, wherein he found 185 funeral cones. Next in order he cleared out and repaired the tombs of Khā-em-ḥat and Userḥat; the former was discovered by Lloyd in 1842. Userḥat was a priest of the KA, or "double," of Thothmes I. Mr. Mond excavated the tomb of Ȧmen-em-ḥat, and examined a large brick wall which had formed part of the court of the tomb of Meri-Ptaḥ, and cleared the mummy pit of User, a high official. At Ḳûrnah he examined two mummy pits, and the tombs of Api, Ȧmen-em-ȧpt, Uaḥ [hieroglyphs], and Ȧmen-mes. At Dêr al-Baḥarî, in the "second circus," he also carried on work, and he discovered a number of small but interesting objects. Between Ḳûrnah and Dêr al-Madînah he found in a pit the coffin of Puȧm [hieroglyphs], of the XVIIIth dynasty. He cleared out the tomb of Teḥuti-em-ḥeb, which lies near that of Khā-em-ḥat, and excavated the tombs of Qen-Ȧmen and Sen-neferȧ. The excavations and restorations which Mr. Mond has carried out are of a most useful character, and he deserves the thanks of all lovers of the civilization of Egypt for the pains and money which he has spent on his work.

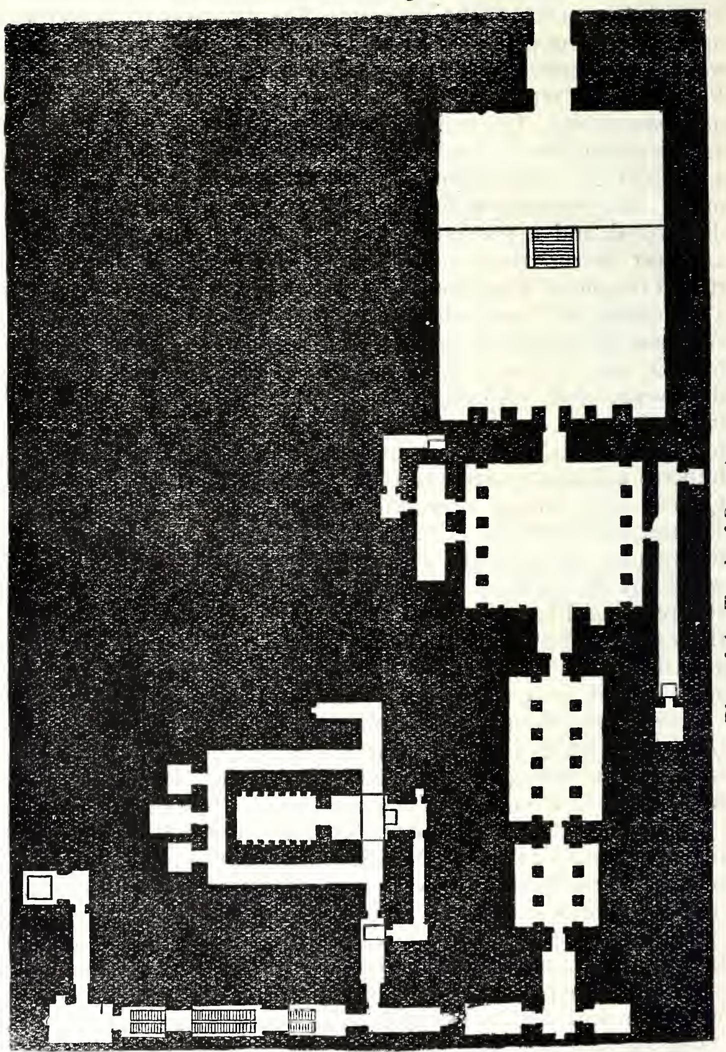
In the winter of 1907–8, Lord Carnarvon, assisted by Mr. Howard Carter, carried out a series of comprehensive excavations at Drah abû'l-Naḳḳah and in the Valley of Dêr al-Baḥarî. In the former place, he found near the mosque the interesting tomb of Tetȧki, which probably belongs to the transition period between the XVIIth and XVIIIth dynasties; the tablet for offerings from this tomb he presented to the British Museum. At Dêr al-Baḥarî he was fortunate enough to find two slabs of calcareous limestone which are inscribed with

texts of first-class importance. One text contains some statements about the deeds of **King Kames**, and throws some light upon the expulsion of the Hyksos. The other text contains the opening lines of a version of the **Precepts of Ptaḥ-ḥetep**, which differs materially from the version given by the Prisse Papyrus, and makes the meaning of many of the aphorisms understandable. In 1908–9 he cleared out the tomb of Tetàki, and discovered on the south side of the slope near Dêr al-Baḥari a tomb of the XXVth dynasty, with the coffins of nine persons in it. The base of a wall 7 feet high and 9 feet thick was also discovered, and a portion of it 150 feet long was cleared. In 1910–11 he discovered an unfinished temple of Ḥatshepsut, a ruined temple of Rameses IV, a XIIth dynasty cemetery, and a "cachette" of intermediate and early XVIIIth dynasty burials. All these discoveries were made in a large mound lying nearly on the axis of the Temple of Dêr al-Baḥarî. In 1915 he discovered and cleared out the tomb of Àmen-ḥetep I; in 1916–17 he discovered a tomb which had been prepared for Queen Ḥatshepsut, and dug through a large portion of the hitherto unknown portion of the Theban Necropolis where the Queens and princes and princesses of the second Theban Empire were buried. The tomb of Ḥatshepsut contained a magnificent sarcophagus of yellow crystalline limestone, on which are inscribed her name Ḥatshepsut and titles as wife of the reigning Pharaoh. The tomb which was made for her in the Valley of the Tombs of the Kings after she assumed the rank and dignity of the Pharaohs, was discovered by Messrs. Davis and Carter in 1903, and is described elsewhere (*see* pp. 429–432).

At Ḳûrnah, Professor Petrie in 1907 discovered a stele of a high official of King Uaḥ-ānkh Antef, and other stelæ inscribed with texts recording the part which the officials, for whom they were made, took in establishing the rule of this king.

In the cemetery at **Ḳurnat Murrai** are large numbers of tombs of the XVIIIth and XIXth dynasties (*see* p. 441), but few of them are sufficiently important to need careful examination. The most interesting, that of Ḥui, a viceroy of Nubia under the XVIIIth dynasty, has been provided with a door by the Administration of Antiquities, and many will be glad that the uncommon scenes depicted on the walls will be preserved. Those who have the time and are prepared to face a large number of bats, should visit the tomb of **Peṭa-Àmen-em-àpt**, a nobleman and priest who flourished under the XXVIth dynasty. During his own lifetime this priest prepared for

himself a tomb containing 22 rooms, and a large number of corridors, all hewn out of the living rock, and he decorated the



Plan of the Tomb of Peta-Amen-em-apt.

walls of these with texts and scenes referring to the making of funeral offerings, according to the use employed in the

Pyramid Period; the ritual of Funeral Sacrifice, with scenes; the "Book of the Gates of the Underworld"; and a number of hymns and religious scenes copied from documents of a much older period. A great many of these have, unfortunately, been destroyed, but large numbers of passages may be restored by the help of the texts on the walls of the corridors and chambers in the pyramids at Ṣaḳḳârah. In the **Valley of the Tombs of the Queens** the most important sepulchre is that of **Queen Ti;** the colouring of the scenes is very good, and the paintings are comparatively well preserved.


Tomb of Queen Ti.

In 1903–1904 Messrs. Schiaparelli and Bellerini opened the tomb of Queen Åst (No. 51), and the tomb of a person without name (No. 46), and they discovered the tombs of Queen Nefert-åri-meri-Mut (No. 66), of Åmen-ḥer-khepesh-f (No. 55), of P-Rā-ḥer-unami-f (No. 42), and of Åāḥmeset, the daughter of Seqenen-Rā. Mr. Seton Karr has shown that the tombs at Thebes, and elsewhere in Egypt, were dug out by means of **tools made of chert,** and that metal tools were used for the final shaping and smoothing of the chambers. He has found numbers of chert chisels and other tools near the tombs and among the stone fragments which were cast out from them in ancient days, and there is reason to believe that tools of this material were in use for hewing stone so far back as the Neolithic Period. The **light** used by the workmen in the course of their work was, no doubt, that of ordinary lamps, which were probably suspended from stands. In 1905 a lamp, with stand complete, was found in a tomb a few miles to the south of Thebes.

10. The **Tombs of the Kings,** called in Arabic Bibân al-Mulûk, are hewn out of the living rock in a valley, which is reached by passing the temple at Ḳûrnah; it is situated about three or four miles from the river. This valley contains the tombs of kings of the XVIIIth, XIXth, and XXth dynasties, and is generally known as the Eastern Valley; a smaller valley, the Western, contains the tombs of some of the kings of the XVIIIth dynasty. These tombs consist of long inclined planes with a number of chambers or halls receding

into the mountain, sometimes to a distance of 300 feet. Strabo gives the number of these royal tombs as 40, 17 of which were open in the time of Ptolemy Lagus. In 1835, 21 were known, but the labours of Mariette, Maspero, Loret, Davis, Lord Carnarvon and others, have brought 20 more to light.

The Tombs of the Kings form a very important and interesting class of monuments, the like of which exists nowhere else in Egypt. They were all made between 1700 B.C. and 1050 B.C., that is to say, they were hewn and built during the most flourishing period of Egyptian history, and at a time when tribute flowed into the country from Syria, Palestine, Libya, Nubia, and a part of the Northern Sûdân. When we consider the group as a whole it is easy to see that all are built practically on one and the same plan; the modifications which occur in the details of each are due partly to structural difficulties and partly to the difference in the lengths of time which were devoted to the making of them. If the king began to build his tomb early in life, and had a long and successful reign, his tomb would be large, and contain many chambers, and be elaborately decorated with scenes and texts from the religious works which were most esteemed at the time; if his reign were short and supplies were not forthcoming to provide the food of the workmen and others employed on the work, the corridors had to be shortened, and the number of rooms diminished. It may well be assumed that these tombs were built by forced labour. One of the commonest religious views of the Egyptians was that the **Ṭuat**, or Underworld, was a long, narrow valley which ran parallel with Egypt, and was neither above nor below the level of this earth. It had a river flowing through the whole length of it. This valley began on the west bank of the Nile, ran due north, bent round towards the east when the Delta was approached, and terminated at the place where the sun rose. It was divided into 10 sections, and at each end was a sort of vestibule or chamber. The chamber at its beginning was called **Ȧmentet**, and was a place of gloom; as the passenger through this valley went onwards each of the first five sections grew darker and darker, until at the end of the fifth section the darkness was absolute. As the passenger moved on through the last five sections the darkness grew less and less dense, until at the end of the tenth section he entered the chamber, the gloom of which resembled that of the chamber at the beginning of the valley. The whole night,

which was supposed to consist of 12 hours, was occupied in passing through the Ṭuat, and the two chambers and the 10 main divisions of it were traversed each in one hour. The Ṭuat was a difficult place to pass through, for portions of it were filled with hideous monsters and horrible reptiles, and a lake of boiling and stinking water. Religious tradition declared that the Sun-god Rā had made his way in it seated in his boat, but that he was only enabled to do so by employing his words of magical power, and by the exercise of the functions of deity. The priests declared that they possessed the knowledge of such words of power, and people believed that if they learned them, and learned to recognize the various divisions of the Ṭuat and the beings in them by means of the pictures which the priests provided, they could make the journey through the Ṭuat in safety, and would rise in the next world with the sun. The priests of Åmen, who promulgated this view, which was based upon an older system of indigenous belief, presided over the building of the royal tombs in the XVIIIth dynasty, and made each tomb to resemble the long, narrow valley of the Ṭuat by providing it with long corridors. When the body was deposited in the tomb the priests repeated the words of power which Rā was believed to have uttered, and performed ceremonies in imitation of those of the acts of the god; in fact, made very full use of sympathetic magic, and the worshippers of Åmen believed that their kings would surely and certainly pass safely through the dark valley, and would overcome all their foes, and would rise together with the sun to a new life in the next world. Now, the Sun-god traversed this valley each night in his boat, and, of course, rose each day; the aim, then, of every one of his worshippers was to secure a passage in his boat, for if only this could be obtained resurrection was certain. The doctrine of the sun-worshippers and the priests of Åmen taught that the souls of all who died during the day made their way to Åmentet, where, provided they were equipped with the knowledge of the necessary "divine words," they entered the boat of the Sun-god. When they arrived at the kingdom of Osiris at midnight they were judged, and the blessed were rewarded, and the wicked were annihilated; this done the boat of the Sun-god passed on towards the East, where, having destroyed all the nature powers of night and darkness, *i.e.*, cloud, mist, rain, etc., he rose on this world in glorious strength, and the souls who had chosen to stay with him rejoiced in renewed light and were happy.

All the inscriptions on these tombs were written to effect this object, and they may be thus grouped:—(1) **The Book of the Praisings, or Litanies, of Rā,** which gives the 75 Great Names of Rā. This group of names may be compared with the 50 Great Names of Marduk at Babylon, and the 99 "Beautiful Names" of Allâh as known among the Arabs. (2) **The Book of the Gates,** *i.e.*, the 12 Gates or Pylons of the 12 divisions of the Ṭuat. This book gave the names of the Gates and of their guardians, and described the various beings that were to be found in each section, and the texts supplied the addresses which they made to Rā, and the answers which Rā made to them. One portion of this book is exceedingly old, and the sympathetic magic described in it must date from pre-dynastic times. (3) **The Book of what (or, him who) is in the Underworld,** which treats of the 12 divisions of the Underworld, and contains texts, the knowledge of which was of vital importance to the deceased. It describes at some length the kingdom of the god Seker, and the monster serpents which guard it, and reveals the belief in the existence of a place of doom where the darkness was impenetrable and the depth unfathomable. This work appears to represent the dogmas of the most ancient inhabitants of Egypt with the modifications which were approved of by the priests of Åmen, and it seems that they tried to eliminate the belief in Osiris, so far as was possible, from their writings, and to make their god Åmen-Rā all-sufficient. They did not, however, succeed in doing so, and the best proof of this fact is supplied by the sarcophagus of Seti I, now in the Soane Museum in London. Seti I allowed the "Book of what is in the Underworld" to be inscribed in full on the walls of the chambers of his tomb, but he had the full text of the Book of Gates, with all the vignettes, chiselled on his sarcophagus, including the magical part of it, and to make quite certain of his future welfare he caused some important chapters to be added from the old *Book of the Dead.* Similarly Thothmes III allowed the walls of his tomb to be covered with the "Book of what is in the Underworld," but on one of the swathings of his mummy we find a copy of the CLIVth Chapter of the *Book of the Dead.* The group of sepulchres called the Tombs of the Kings may be now briefly enumerated; the order is chronological:—

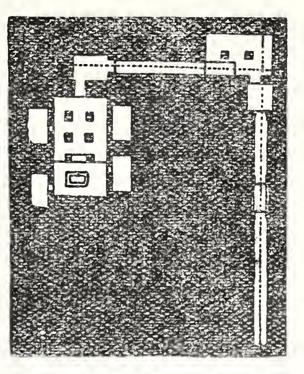
I (No. 38). **Tomb of Thothmes I.**—This tomb, the oldest

of the Bibân al-Mulûk, is a small one; it was discovered by Loret in 1899. It contains the royal sarcophagus.

II (No. 20). **Tomb of Ḥatshepsut.**—This tomb was excavated by Mr. Theodore N. Davis and Mr. Howard Carter in 1903 and 1904. It has already been described.

III (No. 34). **Tomb of Thothmes III.**—This tomb was discovered by Loret in 1899, and lies about 325 feet from the tomb of Rameses III. The walls of the various chambers are ornamented with figures of the gods and inscriptions, among others being a long list of gods, and a complete copy of the "Book of what is in the Underworld." The sarcophagus was, of course, found to be empty, for the king's mummy was taken from Dêr al-Baḥarî, where it had been hidden by the Egyptians during a time of panic, to the Bûlâḳ Museum about 40 years ago. On a column in the second chamber we see depicted Thothmes followed by his mother Aset, his wives Åāḥ-sat, Mert-Rā, and Nebtkheru, and his daughter Nefert-åru. It is to be hoped that steps will soon be taken to publish the texts and inscriptions in this tomb. The mummy of Thothmes III was found at Dêr al-Baḥarî by Maspero and is in the Museum in Cairo.

IV (No. 35). **Tomb of Åmen-ḥetep II.**—This tomb was found by Loret in 1899, and in it is the mummy of the king lying in its sandstone sarcophagus. Thanks to the exertions of Sir William Garstin, the royal mummy and the bodies of the private persons that formed the funerary sacrifices when the king was laid in his tomb, and were at first removed, have been replaced, and the visitor is now able to look upon an impressive scene of death. The tomb is lit by electric light. The tomb of Amenophis, the son and successor of Thothmes III, in many respects resembles that of his father; the walls are covered with figures of the gods, with the text of the "Book of what is in the Underworld," and scenes similar to those in the older tomb. Among the numerous objects found in the tomb may be mentioned:—Three mummies, each with a large hole in the skull, and a gash in the breast; fragments of a pink

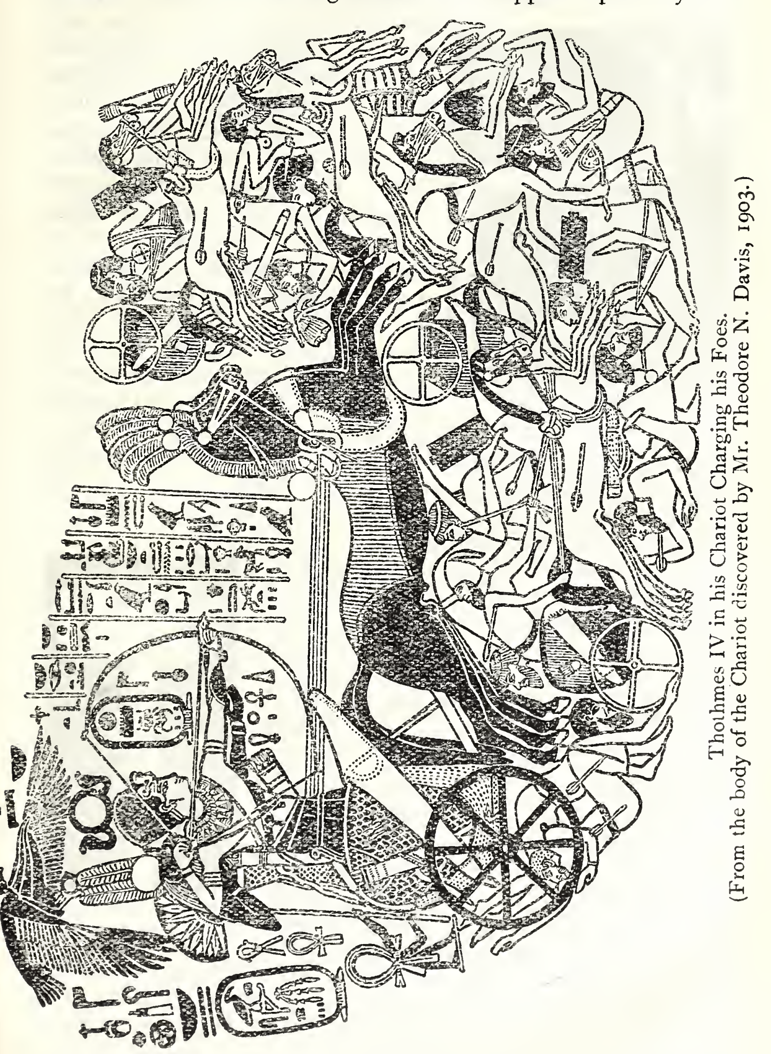


Plan of the Tomb of Åmenḥetep II.

leather cuirass worn by the king; a series of statues of Sekhmet, Anubis, Osiris, Horus, Ptaḥ, etc.; a set of alabaster Canopic vases, a collection of amulets of all kinds; a large series of alabaster vessels; and a number of mummies of kings and royal personages, among whom are Thothmes IV, Amenophis III, Menephthah, Rameses IV, Rameses V, and Rameses VI. Thus in the tomb of Amenophis II we have another hiding-place of royal mummies similar to that of Dêr al-Baḥarî.

V (No. 43). **Tomb of Thothmes IV.**—This tomb was excavated in 1902 and 1903 by Mr. Theodore N. Davis, who has most generously published a detailed description both of it and its contents (*The Tomb of Thothmes IV*, London, 1904). The tomb lies on the eastern side of the valley, and the descent to it is made by a flight of steps; it consists of a well, a hall, a flight of steps, a sloping corridor, a second flight of steps, a vestibule, a short passage, and the chamber which contains the sarcophagus. The sarcophagus was found to be empty. In the paintings on the walls of the well and vestibule the king is depicted standing before Osiris, Anubis, Hathor, and Khenti-Åmenti. A hieratic inscription states that the tomb was repaired or restored in the reign of Ḥeru-em-ḥeb, the last king of the XVIIIth dynasty. The inscribed sarcophagus is rounded at the top and measures 10 feet by 6 feet 6 inches by 5 feet 4 inches. The mummy is that of a man, "young, clean-shaven, and effeminate," 5 feet 6 inches high; the head has a cephalic index of 77·7, which places it in the mesaticephalic group. Circumcision had been performed. According to Mr. G. Elliot Smith, Thothmes IV was about 25 years of age when he died. In the sarcophagus chamber the **body of a chariot** was found. This magnificent object is now in the Museum at Cairo, and is one of the most interesting objects of the period which has ever been found. No one who is interested in Egyptian antiquities should fail to see it. On the right side of the chariot (exterior) the king, accompanied by the god of war, Menthu, is seen in his chariot charging the foe and shooting arrows among the hostile charioteers; on the left side (exterior) the king is seen in his chariot riding down his foes and slaying numbers of them. On the inside of the chariot Thothmes is depicted in the form of a human-headed lion, the paws of which rest upon the prostrate forms of enemies. The nations conquered come from Nehiren, Sanker, Tunep, Shasu, Ḳeṭesh, Thikhisa, and other regions. In a corner of a small chamber by the side of the sarcophagus chamber, "resting in an erect

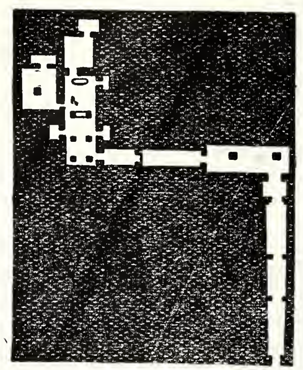
"position against the wall, was a denuded mummy of a boy, "whose stomach and cage had been ripped open by the



Thothmes IV in his Chariot Charging his Foes.
(From the body of the Chariot discovered by Mr. Theodore N. Davis, 1903.)

"ancient plunderers with a very sharp knife" (Mr. Howard Carter, in *Tomb of Thothmes IV*, p. 10).

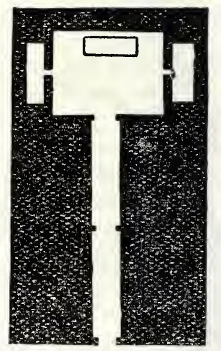
VI (No. 22). **Tomb of Åmen-ḥetep III.**—This tomb is in the Western Valley, and it seems not to have been finished. Its total length is about 370 feet, and, like many of the best tombs, it contains a deep, rectangular shaft, commonly called a well, which was intended either to bar the way of the thief or to mislead him. The scenes on the walls represent the king standing before gods of the Underworld, and are unimportant, but the astronomical scenes painted on the ceilings are of considerable interest. The sarcophagus is broken, and the mummy was hidden in a chamber in the tomb of Åmen-ḥetep II, where it was found by M. Loret in 1899.



Plan of the Tomb of Åmen-ḥetep III.

VII (No. 23). **Tomb of Åi.**—This tomb is in the Western Valley, and is called **Tomb of the Apes,** because of the picture of 12 apes, which probably forms part of the vignette of the First Hour of the Night.

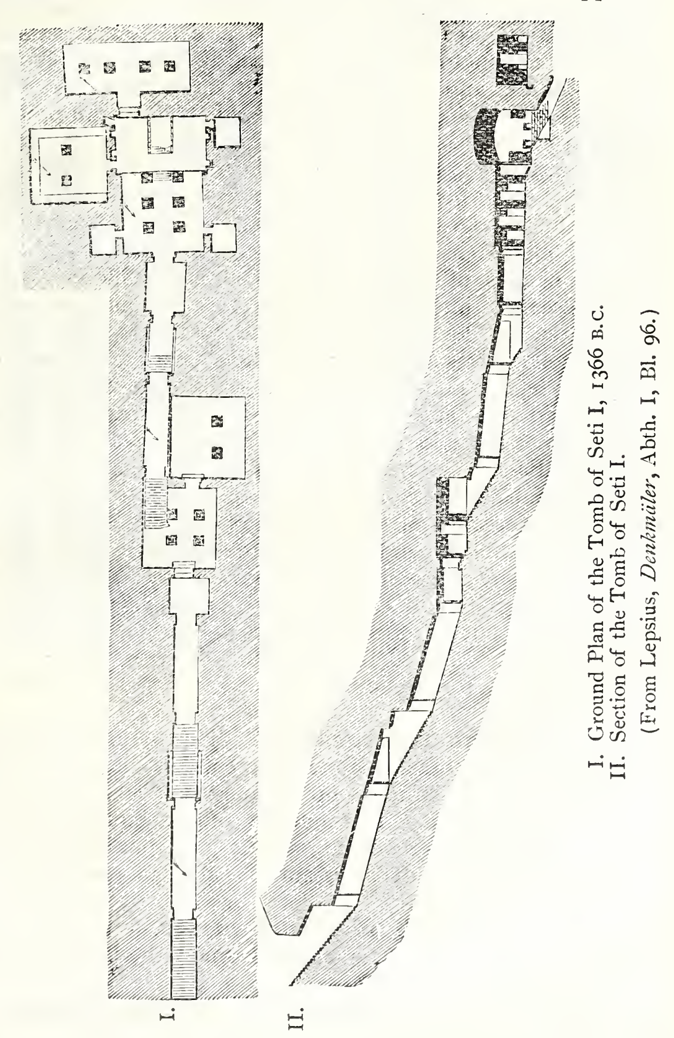
VIII (No. 16). **Tomb of Rameses I.**—This tomb was discovered by Belzoni and excavated by M. Loret; the granite sarcophagus is in its chamber, and the king's mummy is now in the museum at Cairo.



Plan of the Tomb of Rameses I.

IX (No. 17). **Tomb of Seti I,** called also "Belzoni's Tomb," because it was discovered by him in 1817. This is the most important and interesting of all the royal tombs, and should be carefully examined, because it may be regarded as the best known type of the tombs which were planned by the priests of Åmen. The walls are ornamented with texts and mythological and religious scenes which refer to the passage of the Sun, and of the king also, through the Underworld. On the walls of the sloping corridor is a copy of the "Book of the Praisings of Rā," and on those of the chambers are the texts and vignettes of 11 of the 12 sections of the "Book of what is in the Underworld"; the twelfth section is, for some extraordinary reason, omitted. A

copy of the first half of the short form of this work is also written on some of the walls, and the scribe was stopped so



I. Ground Plan of the Tomb of Seti I, 1366 B.C.
II. Section of the Tomb of Seti I.
(From Lepsius, *Denkmäler*, Abth. I, Bl. 96.)

suddenly in his work that he did not finish the section which he had begun. It will be noticed that some of the figures of

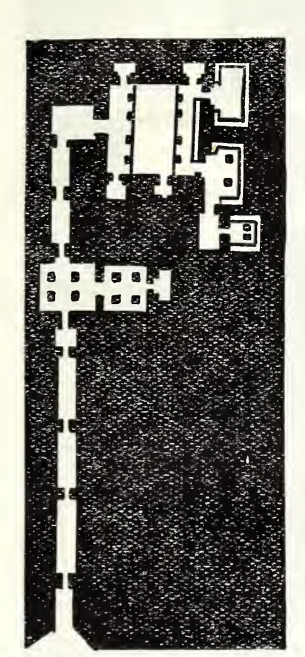
gods, etc., are only traced in outline, a fact which suggests that the tomb was not finished when the king died, and that afterwards no attempt was made to finish it. It is impossible to describe the scenes on the walls in detail; it is sufficient to draw attention to the excellence and beauty of the paintings and sculptures, and to point out that the whole series refers to the life of the king in the Underworld. The tomb proper is entered by means of two flights of steps, at the bottom of which is a passage terminating in a deep well. Beyond this are two halls having four and two pillars respectively, and to the left are the passages and small chambers which lead to the large six-pillared hall and vaulted chamber in which stood the sarcophagus of Seti I. Here also is an inclined plane which descends into the mountain for a considerable distance; from the level of the ground to the bottom of this incline the depth is about 150 feet; the length of the tomb is nearly 500 feet. The designs on the walls were first sketched in outline in red, and the alterations by the master designer or artist were made in black. The mummy of Seti I, found at Dêr al-Baḥarî, is preserved in the museum at Cairo. The beautiful alabaster sarcophagus of Seti I, inscribed with the texts and scenes of the "Book of the Gates," was taken to London by Belzoni and sold by him to Sir John Soane for £2,000; this magnificent object is now in the Soane Museum in Lincoln's Inn Fields, London. In 1903–1904 Mr. Howard Carter carried out a series of repairs in various parts of the tomb of Seti I. More than one-half of the cost of these was defrayed by Mr. Robert Mond, who also assisted in making a plan for work.

X (No. 7). **Tomb of Rameses II.**—This tomb has become choked with sand and limestone fragments, in such a way that it appears to have been filled up on purpose; it was probably faulty in construction. The mummy of the king was found at Dêr al-Baḥarî in a coffin, which may possibly be the work of the XXIInd dynasty, and is now in the Egyptian Museum at Cairo.

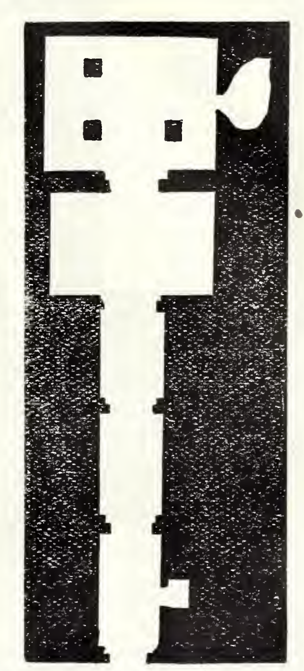
XI (No. 10). **Tomb of Åmen-meses.**—A man who usurped the royal power for a short time; the tomb is in a ruined condition.

XII (No. 8). **Tomb of Mer-en-Ptaḥ (Menephthah).**—This tomb is decorated with texts from the "Book of the Praisings of Rā," and from the "Book of the Gates"; the sarcophagus is in its chamber. The mummy of the king was

found by M. Loret in the tomb of Åmen-ḥetep II in 1899, and is now in the Egyptian Museum at Cairo. This tomb was



Plan of the Tomb of Seti II.



Plan of the Tomb of Åmen-meses.

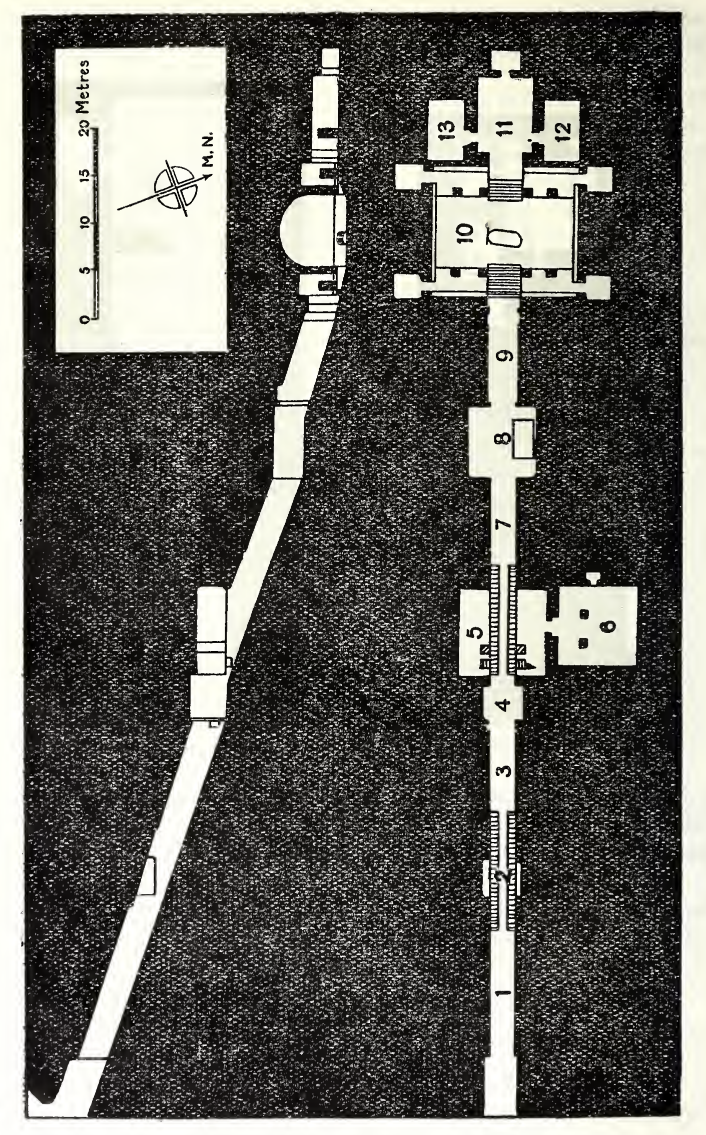
completely excavated in 1903–4 by Mr. Howard Carter, from whose description of it, in *Annales du Service*, tom. VI, fasc. 2, p. 116, I have taken the plan given on page 462.

XIII (No. 15). **Tomb of Seti II.**—This tomb appears not to have been finished. It was completely cleared out by Mr. Howard Carter in 1903–4 at the expense of Mrs. Goff. It has been provided with an iron gate.

XIV (No. 14). **Tomb of Set-nekht,** father of Rameses III; the tomb was originally made for the queen Ta-usert, whose inscriptions and figures were obliterated by Set-nekht.

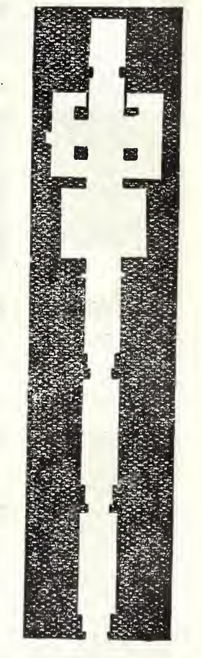
XV (No. 3). This tomb was made for Rameses III; it is now choked with sand.

XVI (No. 11). **Tomb of Rameses III.**—This tomb is



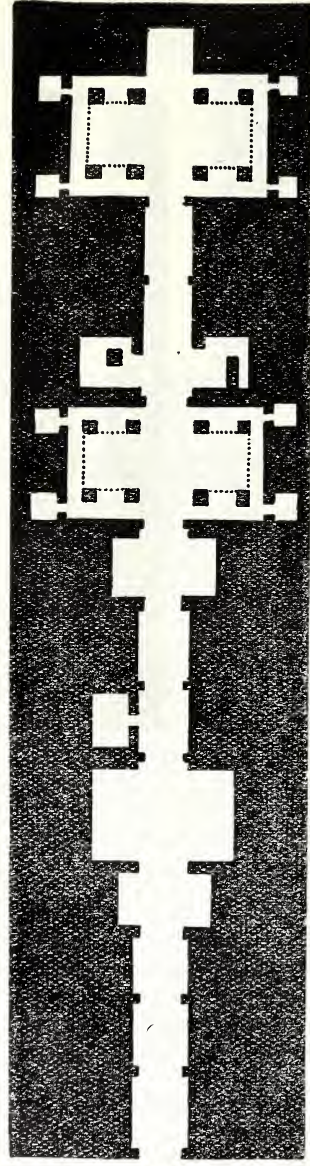
Plan of the Tomb of Menephthah I.

commonly called "Bruce's Tomb," because it was discovered by this traveller, and the "Tomb of the Harper," on account of the scenes in which men are represented playing harps. The walls are inscribed with texts from the "Book of the Praisings of Rā," and the "Book of what is in the Underworld," and the "Book of the Gates," and several vignettes from the last two works are painted upon them. The architect did not leave sufficient space between this and a neighbouring tomb, and hence, after excavating passages and chambers to a distance of more than 100 feet, he was obliged to turn to the right to avoid breaking into it. The flight of steps leading into the tomb is not as steep as that in No. 17, the paintings and sculptures are not so fine, and the general plan of ornamentation differs. The scenes on the walls of the first passage resemble those in the first passage of No. 17, but in the other passages and chambers warlike, domestic, and agricultural scenes and objects are depicted. The body of the red granite sarcophagus of Rameses III is in Paris, the cover is in the Fitzwilliam Museum, Cambridge, and the mummy of this king is in the Egyptian Museum at Cairo. The length of the tomb is about 400 feet. For a plan of the tomb *see* p. 464.



Plan of the Tomb of Rameses II.

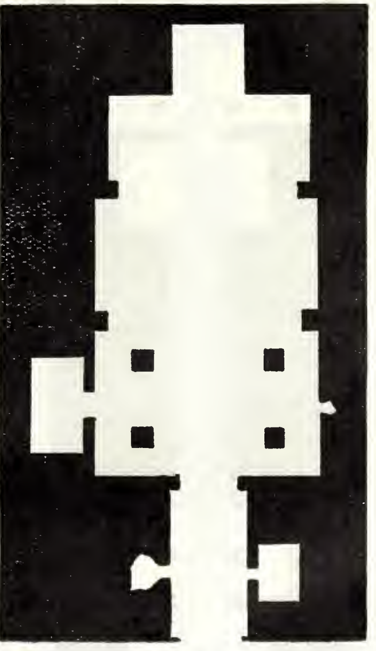
XVII (No. 2). **Tomb of Rameses IV.**—This tomb is probably the finest example of the royal tombs of the XXth dynasty, which are built on a comparatively small scale. The texts and scenes which ornament the walls of the chambers and corridors are from the three works quoted above, but several of the vignettes that appear in this tomb are not found elsewhere. It is interesting to note that in the first room copies of Chapters CXXIII, CXXIV, and CXXVII of the *Book of the Dead* are given. The granite sarcophagus of the king, of colossal proportions (12 feet by 9 feet by 7 feet), is in its proper chamber. A peculiar interest attaches to this tomb, for it is the only Egyptian tomb of which an ancient plan has been found; this plan is traced on a papyrus, now unfortunately in a mutilated condition, which is preserved at Turin, and was published by



Plan of the Tomb of Set-nekht.

Plan of the Tomb of Rameses III.

Lepsius and Chabas. These scholars succeeded in deciphering the descriptions of the chambers of the tomb given in the document, and the former, having made careful measurements of the dimensions of the various sections of the rooms, decided that the work had been substantially carried out in accordance with the plan.

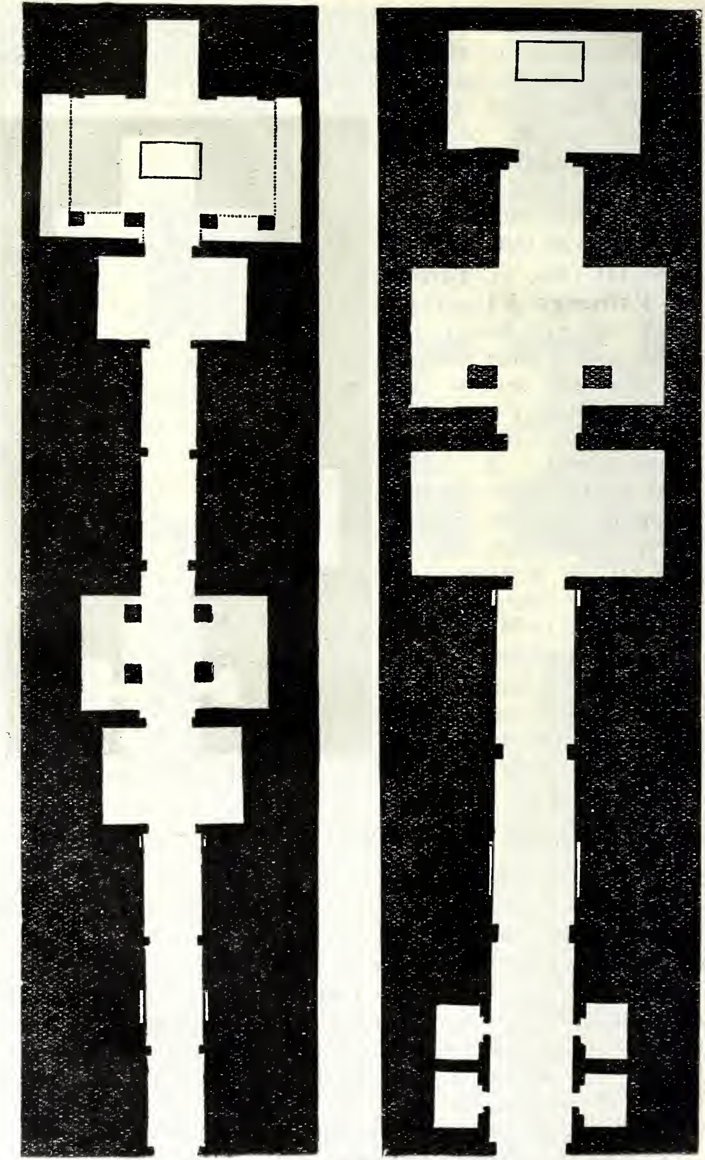


Plan of the first Tomb of Rameses III.

XVIII (No. 9). **Tomb of Rameses VI.**—This tomb was well known to Greek and Roman visitors to Thebes, several of whom, with very questionable taste, left behind them records of their visits in the form of inscriptions on its walls. From some of these "graffiti" it is clear that their writers regarded this tomb as that of **Memnon,** who has usually been identified with Ȧmen-ḥetep III; this mistake was caused by the fact that the prenomen of Ȧmen-ḥetep III and the first part of that of Rameses VI, "Neb-Maāt Rā," [hieroglyphs], are identical. Some of the graffiti belong to a period so late as the fourth century of our era. The paintings of an astronomical character in the sarcophagus chamber are the only points of special interest in this tomb. For a plan of the tomb *see* p. 466.

XIX (No. 6). **Tomb of Rameses IX.**—This tomb is remarkable for the variety of sculptures and paintings of a nature entirely different from those found in the other royal tombs; they appear to refer to the idea of resurrection after death and of immortality, which is here symbolized by the principle of generation. For a plan of the tomb *see* p. 466.

XX (No. 1). **Tomb of Rameses X.**



Plan of the Tomb of Rameses VI. | Plan of the Tomb of Rameses IX.

XXI (No. 18). **Tomb of Rameses XI.** (Now used as an engine room.)

XXII (No. 4). **Tomb of Rameses XII.**—This tomb was not finished.

XXIII (No. 5). An entrance to a corridor or chamber, uninscribed.

XXIV (No. 12). An uninscribed mummy pit.

XXV (No. 13). Tomb of Bai, an official of Sa-Ptaḥ.

XXVI (No. 19). Tomb of Ment-ḥer-khepesh-f, already mentioned.

XXVII (No. 21). An uninscribed mummy pit.

XXVIII (No. 24). Uninscribed tomb in the Western Valley.

XXIX (No. 25). Uninscribed tomb in the Western Valley.

XXX–XXXVII (Nos. 26–33). Uninscribed mummy pits or tombs.

XXXVIII, XXXIX (Nos. 36, 37). Tombs not royal.

XL–XLII (Nos. 39–41). Uninscribed mummy pits.

XLIII (No. 42). Tomb of Sen-nefer, XVIIIth dynasty.

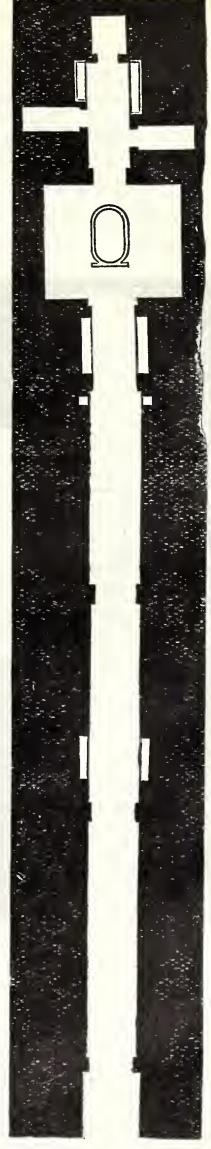
XLIV (No. 44). Tomb of Thentkaru.

XLV (No. 45). Tomb of Userḥat.

XLVI. The **tomb of Sa-Ptaḥ**. This tomb was discovered by Mr. Theodore M. Davis during the excavations which he carried out in 1905–7 at the southern extremity of the Valley of the Tombs of the Kings. In a bay close by are situated the tombs of Seti II, Queen Ta-usert, Bai and Sa-Ptaḥ. The plan of the tomb is

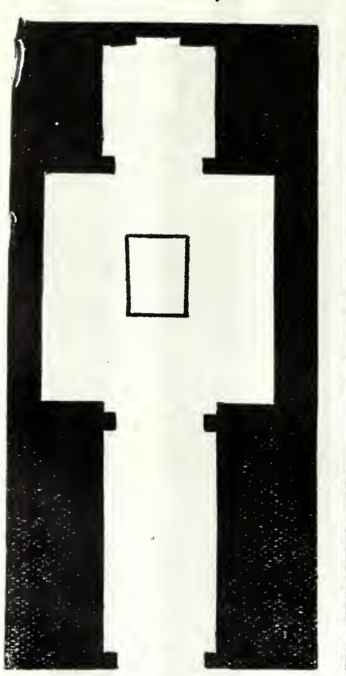


Plan of the Tomb of Rameses IV. (From a Papyrus.)

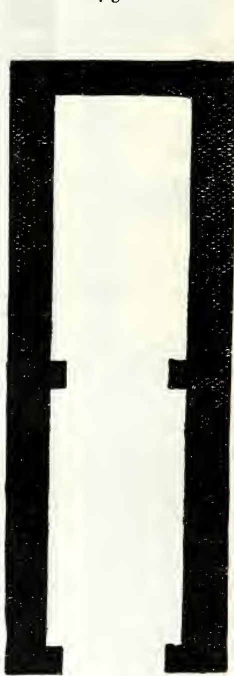


Plan of the Tomb of Rameses IV.

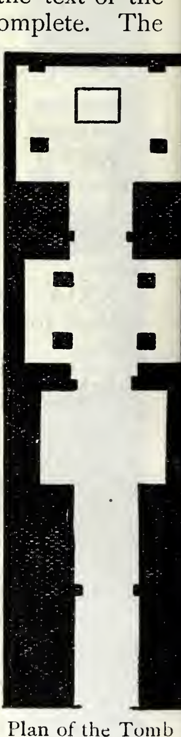
that of most tombs of the latter part of the XIXth and of the XXth dynasties. The large hall of the tomb is approached through three corridors and a small square chamber, and its roof was supported by four columns; in the centre of it is a cutting which leads down into a corridor. Beyond the hall are two corridors and a small room. The walls and roof are decorated in bright colours, and in the first corridor is the text of the famous Litany of Rā, with its 75 sections complete. The



Plan of the Tomb of Rameses VII (?)



Plan of the Tomb of Rameses X.



Plan of the Tomb of Rameses XII.

mythological scenes are similar to those which are found in the royal tombs of the XIXth and XXth dynasties.

XLVII. **Tomb of Iuȧa and Thuȧu**, the father and mother of Ti, wife of Ȧmen-ḥetep III, about 1450 B.C. This important tomb was discovered by Mr. Theodore M. Davis on February 12th, 1905. Early in that year this gentleman began to excavate a site which had been chosen

for him by Maspero, mid-way between the tombs of Rameses IV and Rameses XII, on the west bank of the Nile. In the course of the work a flight of steps leading down into the ground was discovered, and at its foot the way was blocked by a doorway filled with large stones. When some of these had been removed, a boy was sent through the opening, and he returned with a staff of office in one hand, and a yoke of a chariot plated with gold in the other. Mr. Davis then passed through the opening, and found himself at the head of a second



Inscribed Coffer from the Tomb of Iuáa and Thuáu.

flight of steps, twenty in number, on which were lying some objects which had been stolen from the tomb some thirty-four centuries ago. The thieves had been disturbed in their work, and probably dropped these as they fled. On the following day the tomb was formally opened in the presence of the Duke of Connaught, and those who were allowed to enter it saw the most curious and gorgeous funeral furniture which has ever been seen in an Egyptian tomb. Mummy-cases plated

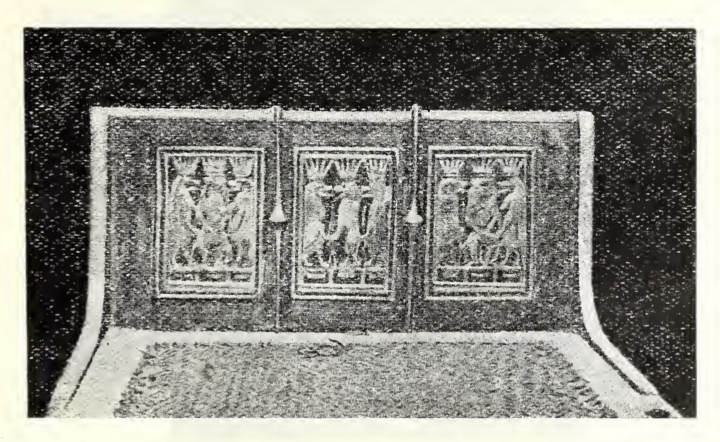
with gold, exquisitely formed alabaster vases, painted boxes and chairs, a chariot, etc., lay piled one above the other in barbaric profusion. The sepulchral chamber is about 30 feet long, 15 feet wide, and 8 feet high. To the left of the entrance were two large wooden sarcophagi, painted blue and gold, each containing two coffins, two for the man and two for the woman, who were the occupants of the tomb. Each outer case was plated with gold outside and lined with silver, and each inner case was plated with gold outside and lined with gold leaf. Near the wall to the right were two mats made of palm leaves, which are commonly called "Osiris beds." On the mats



Set of Canopic Vases from the Tomb of Iuáa and Thuáu.

layers of damp earth were laid, and in the earth wheat was planted in such a fashion as to outline figures of Osiris. When the grain grew up the form of the god appeared in living green. Primarily the placing of an Osiris mat in the tomb was merely an act of sympathetic magic, but there is reason to believe that in the XVIIIth dynasty spiritual beliefs of a high character were connected with the custom. At the western end of the tomb were several large sealed jars full of wine and oil, and small boxes containing pieces of cooked meat wrapped up in black muslin. Above these was the chariot already mentioned,

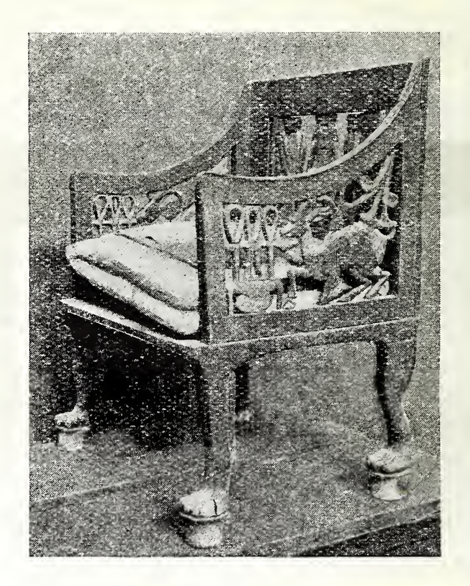
and close by was the set of "Canopic" jars, which contained some of the intestines of the deceased. Elsewhere in the tomb were found sandals made of papyrus and leather, boxes to hold *ushabtiu* boxes, and *ushabtiu* made of wood, alabaster, gold and silver, and painted wooden vases. Worthy of special note are:—(1) A box for holding the clothes of the deceased made of palm-wood and papyrus; inside it is a shelf provided with papyrus flaps. (2) A box plated with gold and blue porcelain. (3) A box, on four legs, with a rounded cover, inlaid with ivory; the names and titles of Åmen-ḥetep and Ti are given in gold painted on a blue ground. (4) A long bed, with the head-piece ornamented with panels, wherein are figures of the old deities Bes and Ta-urt



Inside of Head of Bedstead of Iuȧa and Thuȧu.

made of gilded ivory. This is undoubtedly the bed whereon the deceased had slept during their lives, and the plaited flax on which they lay is curved by use. (5) A chair ornamented with reliefs in gilded plaster. On each side is a figure of a gazelle, and a triple emblem of "life." In it is a cushion stuffed with goose-feathers. (6) A chair of state, with solid sides and back, ornamented with figures of gods and of Sat-Åmen, daughter of Queen Ti. In front, at each side just above the legs, is a carved female head; the seat of the chair is made of plaited palm-leaves. (7) A chair of state which, like the preceding, belonged to Sat-Åmen, with a representation of

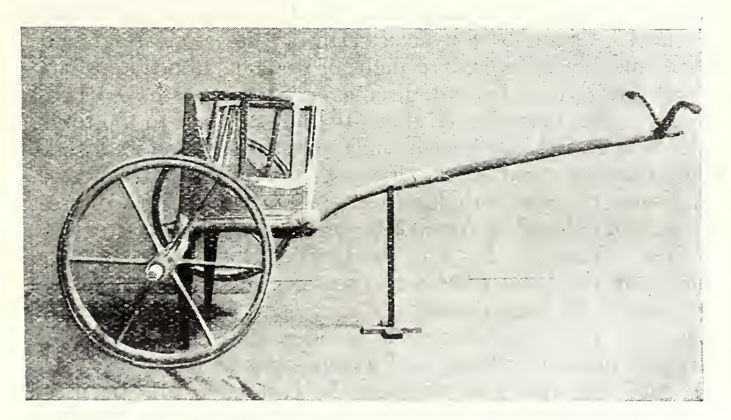
the deceased sitting with a cat under her chair. The picture is lined by the so-called "Greek fret," the result, some think, of intercourse between Egypt and the Ægean. All the objects in the tomb are beautiful, and nearly all of them are plated with gold, or covered with gold leaf, or decorated in some way with the precious metal. The effect of so much gold is to give many of the objects a garish appearance, but it in no way destroys the beauty of their shapes and forms. When we remember that Ȧmen-ḥetep III was master of all the gold-producing districts



Chair of State from the Tomb of Iuȧa and Thuȧu.

in the Sûdân, we need not be surprised at such a display of gold on the funeral furniture of one of his fathers-in-law and one of his mothers-in-law. The forms of the name of Queen Ti's father are Iuȧa, Ȧaa, Ȧȧa, and Ȧaȧa, , , , and , or , and his titles were "Erpā ḥa," "Smer-en-smeru," for which it is impossible to find exact modern equivalents, and he was

called the "mouth of the king of the South, and the ears of the king of the North," [hieroglyphs] The offices which he held were those of "seal-bearer" or "chancellor," and "priest of Menu" (or, Åmsu), and he was the "overseer of the cattle of the god Menu in the city of Åpu" (Panopolis). His wife Thuåu [hieroglyphs] is called the "ornament of the king," [hieroglyphs], and she was a "priestess ([hieroglyph] *shemāt*) of Åmen." Her husband is described as the



Chariot from the Tomb of Iuåa and Thuåu.

"divine father (*i.e.*, father-in-law) of the lord of the two lands," and she is often mentioned as the "royal mother of the great royal wife." Nowhere on the objects found in the tomb have we a hint as to their nationality, but it seems quite clear that they were not Egyptians. On the scarabs which Åmen-ḥetep III had made to commemorate his marriage with Ti, the names of her father and mother are given without the addition of any title of honour, and without the sign [hieroglyph], or [hieroglyph] which would indicate that her parents were foreigners, but it is nevertheless probable that they were. From the way in which Queen Ti is addressed by some of the writers of the Tall al-'Amarnah Tablets, we are justified in assuming that they were addressing

a countrywoman, which is probably the case. The titles of Iuâa and Thuâu mentioned above afford no reason for doubting this, for nothing would be more natural than for Åmen-ḥetep III to bestow high rank and titles upon his chief wife's parents. Meanwhile there is reason for believing that Queen Ti's influence made her son reject the pretensions of the priests of Åmen, and it seems that her religious opinions were unlike those of the orthodox Egyptians of Thebes.

The **Tomb of Ti** was discovered by Mr. Theodore M. Davis in January, 1907. The tomb of this queen is situated close to the large rock mound in which Rameses IX had his tomb made, and it was buried beneath a huge pile of limestone débris which was thrown out by the masons when they were making the tomb of Rameses VI. Mr. Davis sank a pit through this until he came to a layer of clean dry limestone fragments. Below this he came upon a flight of well-cut stone steps, and so was certain that he had discovered a tomb of the XVIIIth dynasty. He then cleared down to the entrance to the tomb, which was closed by a loosely-built wall of limestone fragments. When this was removed rough blocks of limestone were found, which were covered with hard cement and sealed with the seal of the Brotherhood of Åmen-Rā—a jackal crouching over nine captives. The corridor was partly filled with pieces of limestone, and near the door was a sort of wooden sled covered with gold leaf, and having on each side a line of inscription. On it lay a gold-covered wooden door, decorated with a scene representing the queen worshipping the solar disk. On the gold covering was stamped the cartouche of Queen Ti. Passing onwards in the corridor a second doorway was reached, and a large oblong room was entered. On the slope leading from the door to this room lay another wooden door, and by it stood an alabaster vase-stand In the room were portions of gold-covered boxes, and in a small recess stood the four Canopic jars. Beneath the recess lay a wooden coffin covered with gold leaf and inlaid with carnelian and glass; it had fallen in on one side, and the head of the mummy, on which was a gold crown, was visible. When the coffin was cleared the mummy was found to be that of a small person with delicate head and hands. From the clasped hands to the feet, the body was covered with pure gold sheets, called gold foil, but nearly all so thick that when taken in the hands they would stand alone without bending. The condition of the mummy was such that it could not be preserved. The gold crown was removed and the

beautiful necklace, and they are now in the Museum in Cairo. When all the swathings had been removed Mr. Davis had the bones taken out, and they were examined by two surgeons who happened to be staying at Thebes at the time, and who reported that the pelvis was "evidently that of a woman." Their decision was accepted, and most people believed that the body was that of Queen Ti. Subsequently, however, the bones were sent to Dr. Elliot Smith for his inspection, and he decided that they were those of a man! The skull, according to the same authority, is that of a man about 25 or 26 years of age. Now who was the man? Prof. Maspero thought that the vault in which the mummy was discovered was not a real tomb, but a rough cell in the rock which had been used as a secret burial place of a member of the family of the so-called heretic kings. It was removed from its original tomb to place it beyond the reach of fanatical sectarians, who would have destroyed it; no ordinary robber did this, for he would certainly have stolen the gold crown, necklace, etc. The removal was perhaps effected by King Ȧi, or King Tutānkh-Ȧmen. If we accept the testimony of the inscriptions, the body must have been that of Ȧakhu-en-Ȧten, or Amen-ḥetep IV, the "heretic king" himself. It is possible that the mummies of this king's family were removed with all their furniture to Thebes, and that when the opportunity occurred of laying them in their new resting places, the men who were in charge of these secret burials mixed the coffins, and put the son where the mother ought to have been—in fact, that Ȧakhu-en-Ȧten's body was buried in Ti's tomb by mistake. There is still a chance that the tomb appointed for Ȧakhu-en-Ȧten may be discovered in the Valley of the Tombs of the Kings at Thebes with Ti's mummy lying in it in state among her son's funerary furniture.

3. Luxor to Aswân.

The first station passed after Luxor is **Armant**, or **Erment**, with 20,912 inhabitants; it is 458½ miles from Cairo, and nine from Luxor. The town is on the west bank of the Nile. Here is a large, flourishing sugar factory, which is the property of the Egyptian Government. Close by stood the ancient town of Annu shemāt, *i.e.*, the Southern On, in distinction to the Northern On, *i.e.*, Heliopolis; classical writers called the town Hermonthis, and Strabo says that

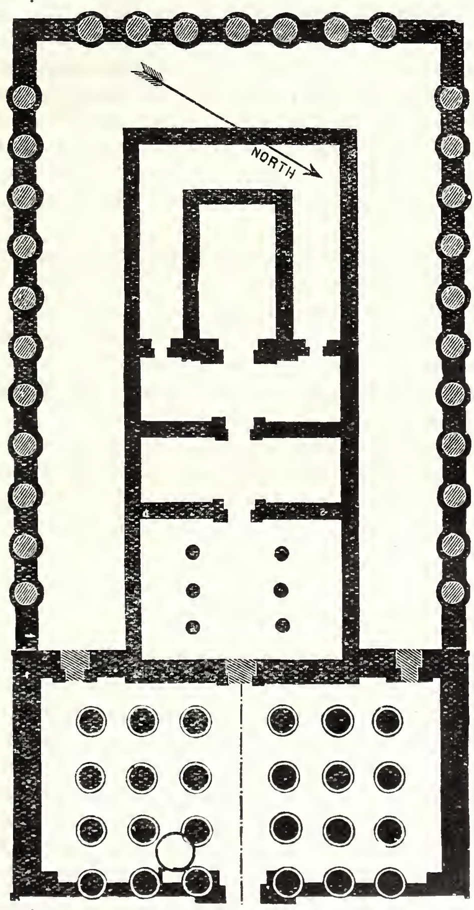
Apollo and Jupiter were worshipped there. In ancient Egyptian times the chief deity of Hermonthis was Menthu, a local god of war, whose attributes were merged into those of a form of Horus. The ruins near are those of the temple dedicated to Isis, which was built by Cleopatra VII, Tryphæna, and is commonly known as the Iseion. It is certain that an Egyptian town must have stood here in very early times, and the numerous remains which are found in the neighbourhood indicate that it was in its most flourishing state before the princes of Thebes attained to the supreme power in the country, and before they made Thebes their capital. A little to the east of Armant lies the town of **Aṭ-Ṭûd,** with 7,900 inhabitants, which some have identified with the **Tuphium** of classical writers; Aṭ-Ṭûd, we know, was a flourishing village in early Coptic times, but Tuphium was probably further south.

Our next station is **Shaghab,** with 4,427 inhabitants. Here travellers who wish to visit **Gabalên** must leave the train, for the "Two Mountains" (as the Arabic name signifies) are on the west bank. Gabalên marks the site of the Greek town Crocodilopolis, the chief god of which was Sebek, who was incarnate in the crocodile. The district was inhabited in the earliest times, for large numbers of flints, pottery, dried human bodies, etc., of the predynastic period have been found here; and the ruins in the neighbourhood prove that a town existed here early in the dynastic period. Close by lies Aphroditopolis (or Pathyris), where there was a famous temple of Hathor.

The next railway station is Al-Maṭâ'nah, but the town **Aṣfûn al-Maṭâ'nah,** with 9,306 inhabitants, is on the west bank. On the west bank, a few miles to the north, stood the ancient Egyptian city of Ḥetsfent; the classical writers turned the name into **Asphynis,** and it forms the base of the name of the modern Arab village.

Asnâ, or **Esnâ,** or **Isnâ,** with 17,315 inhabitants, 484½ miles from Cairo, has its station on the east bank of the river. The Egyptians called the city which stood on the west bank **Sent,** and it marks the site of the ancient Latopolis, and was so called by the Greeks because its inhabitants worshipped the Latus fish. Thothmes III founded a temple here, but the interesting building which now stands almost in the middle of the modern town is of late date, and bears the names of some of the Roman Emperors, *e.g.*, Claudius, Vespasian, Decius (A.D. 249–251). The portico is supported by 24 columns, each of which is inscribed;

their capitals are handsome. The Zodiac here, like that at Denderah, belongs to a late period, but is interesting. The temple was dedicated to the god Khnemu, his wife Nebuut, and their offspring Kaḥrâ. The mountains near Asnâ afforded homes for



Plan of Temple of Asnâ, with restorations by Grand Bey.

Christian recluses and monks in very early times, and in the third century the population of ascetics here was very considerable. Under Decius a systematic attempt was made to suppress Christianity in Egypt, and the monks were forced to perform

military service; their persistent refusals to do this had a great deal to do with the furious persecutions of Christians which took place under Decius and Diocletian. Coptic records are full of allusions to monks who lived in and about Asnâ, and the district is remarkable from being the birthplace of Pachomius, one of the greatest leaders and preachers of asceticism, and the founder of a famous monastery. In the reign of Decius, the last of the Roman Emperors whose names and figures occur on the walls of the temple of Asnâ, it was decreed that every man should offer sacrifice to the gods of Rome; those who complied received certificates from the magistrates, and those who did not were punished or put to death.

In 1906 Professor Garstang completed the excavation of a site in the neighbourhood of Asnâ and made a systematic exploration of the desert lying to the south of Asnâ for a distance of 60 miles. In 1905 Professor Sayce excavated a XIIth dynasty cemetery at Ad-Dêr, close to Asnâ.

The next large village on the railway is **Al-Maḥâmîd,** with 4,194 inhabitants, and on the opposite bank of the river is the ruined pyramid of Al-kulah, which is probably the tomb of some prince or high official who lived in the city of Hierakonpolis, a few miles further south. Travellers who wish to examine the tombs and walls at Al-Kâb leave the train here.

Al-Kâb.

Al-Kâb, 502 miles from Cairo, on the east bank of the river, marks the position of the ancient Egyptian city of **Nekheb,** which existed in the earliest times. The deity worshipped here was called Nekhebet, and she was regarded as the greatest goddess of Upper Egypt; she became incarnate in the vulture. The city of Nekheb was the oldest ecclesiastical centre of Upper Egypt, just as Per-Uatchet was of Lower Egypt, and in dynastic times kings were proud to boast of their dominion over these two cities, which they symbolized by the signs [hieroglyphs] (to be read Nebtà or Nebti), and each chose a title for himself by which this fact was made known. It would seem that the goddess Nekhebet was the special protectress of women with child, for the Greeks identified her with Eileithyia, their own goddess of childbirth, and they called

her city Eileithyiaspolis. At a very early period the inhabitants of Nekheb surrounded their little fortress-city, which was on the bank of the river, with a wall, and this being apparently insufficient to protect it, they added a second wall; the buildings within the inner wall probably consisted of a temple, containing no doubt the original sanctuary of Nekhebet, the offices of government, and the house of a small number of officials. The outer wall seems to have enclosed an area measuring 470 feet by 440 feet. Near this portion of Al-Kâb a large number of graves of the predynastic and archaic periods have been found, side by side with maṣṭabah tombs, built of crude bricks. The small predynastic graves were found chiefly inside the fort of Al-Kâb, but there were a few outside the walls, and it was evident, from the position in which the bodies were buried, and the style and character of the objects found in the graves, that they belonged to the same class of graves as those which were excavated at Abydos, Ballâs, and Naḳâdah between 1894 and 1897 and in 1900 by Messrs. de Morgan, Amélineau, and Petrie. At a later period, probably in dynastic times, the old fortress-town and some additional space were enclosed by a massive mud brick wall some 40 feet thick, and probably from 25 to 30 feet high; remains of this wall, 20 feet high, are still to be seen. The area enclosed by this wall is about 1,900 feet long and 1,800 feet wide. In his most recent remarks on Al-Kâb (*Jnl. Eg. Archæology*, Vol. VII, pts. 1 and 2), Mr. Somers Clarke distinguishes three "sets" of walls, viz., a double range enclosing the temple group, a double range enclosing part of the ancient town, and the Great Walls. Thothmes IV built a small temple at Al-Kâb, Åmen-ḥetep III dedicated a small temple to Nekhebet, and Seti I and Rameses II built a temple containing some well-formed columns with papyrus and Hathor-headed capitals. The coloured reliefs inside are in a comparatively good state of preservation. Nektanebos also built a temple outside the desert gate. Of the Ptolemaïc period the chief remains are the **rock-hewn temple,** with a stairway and massive side-supports, dedicated to Nekhebet by Ptolemy IX and Ptolemy X. Al-Kâb seems to have fallen into decay early in the Roman Period; by Christian times the place apparently was abandoned, and no Arab remains have been found there. In 1892–3 Mr. Somers Clarke and Mr. J. J. Tylor examined and described many of the buildings and tombs at Al-Kâb, and subsequently Professor

Sayce made some excavations here. In 1898 Mr. Quibell excavated the cemetery of the Ancient Empire.

In 1901 Mr. Somers Clarke and Professor Sayce excavated a group of tombs of the IInd and IIIrd dynasties which they found on the southern side of the north line of the great wall; on a granite fragment they identified the Horus name of Khā-sekhemui. Most of the graves, they think, belong to the period of the reign of Seneferu, *i.e.*, about the end of the IIIrd dynasty. In 1902 Messrs. Clarke and Sayce continued the excavation of the cemetery, and in one grave found a copper mirror and some stone beads. The tomb pit was filled up they noticed, "and the filling was raised above the "ground level and finished with a curved section. Over this "brickwork was laid, and in result it had externally an arched "form, but the structure was not in any way a constructed "arch." These tombs resembled the tombs of the IInd dynasty found at Nagaa ad-Dêr by Dr. Reisner. In 1904 the excavation of the cemetery was again continued, and a tomb near that of Sebek-neferu was cleared out; it was made for a man called Usertsen. The graves of dynasties I–IV are to the north of the temple, and those of the Middle Empire to the east of it. Mr. Somers Clarke has collected a series of facts connected with the great wall of Al-Kâb and its foundations which will, when finally worked out, decide the question as to when the dynastic town was enclosed, and its wall built. For the details see *Annales du Service*, tom. vi, Cairo, 1905, page 264 *ff.* In the hills are the tombs of:—

Åāḥmes (Amāṣis), the son of Abana, an officer born in the reign of Seqenen Rā; he fought against the Hyksos, and served under Amāsis I, Amenophis I, and Thothmes I. The inscription on the walls of his tomb gives an account of the campaign against some Mesopotamian enemies of Egypt and the siege of their city. Amāsis was the "Captain-General of Sailors." It is an interesting text both historically and grammatically.

The **Tomb of Paḥeri** is a little over 25 feet long and 11½ feet wide, and when complete consisted of a platform before the entrance in which the shaft leading to the mummy chamber was sunk, a sculptured façade, an oblong chamber with an arched roof, and a shrine, which contained three statues, at the end of the chamber. Subsequently two chambers and a shaft were hewn through the last wall. The shrine contains three life-size statues of Paḥeri and his mother

and wife. The man for whom the tomb was made was the governor of the Latopolite nome in the reign of Thothmes III, and he was descended from ancestors who had served the State for several generations. His maternal grandfather was the celebrated Åāḥmes, the son of Abana, and the inscriptions mention at least seven generations of his family. The scenes in the tomb are worthy of careful examination, and, as they are all described in hieroglyphics, they are of peculiar interest. They unfortunately tell us little or nothing of the biography of Paḥeri, who was an Egyptian gentleman of high rank and social position, but who did little towards making history; that he was a pious man who worshipped the gods of his country diligently, is attested by the sacrificial scenes on the East Wall, and the prayers on the ceiling.

The **Tomb of Åāḥmes**, the son of Pen-nekheb, a fellow-officer with Aāḥmes, the son of Abana. This distinguished man served under four kings—Åāḥmes I, Åmen-ḥetep I, Thothmes I, and Thothmes II, and he appears to have lived on until the reign of Thothmes III; he fought in Nubia, Syria, Palestine, and other countries of Western Asia, and on one occasion he saved his master's life by hacking off the trunk of an elephant which had attacked him.

The **Tombs of Setu and Renna**, both priestly officials who flourished under the XIXth dynasty.

The **Tomb of Sebek-Nekht**, a comparatively small tomb, is of considerable interest, because it belongs either to the period of the XIIIth dynasty or a little later. The scenes and inscriptions are characteristic of this period, and illustrate the manners and customs of the time rather than the performance of the religious ceremonies which were depicted on the walls of the tombs of a later date.

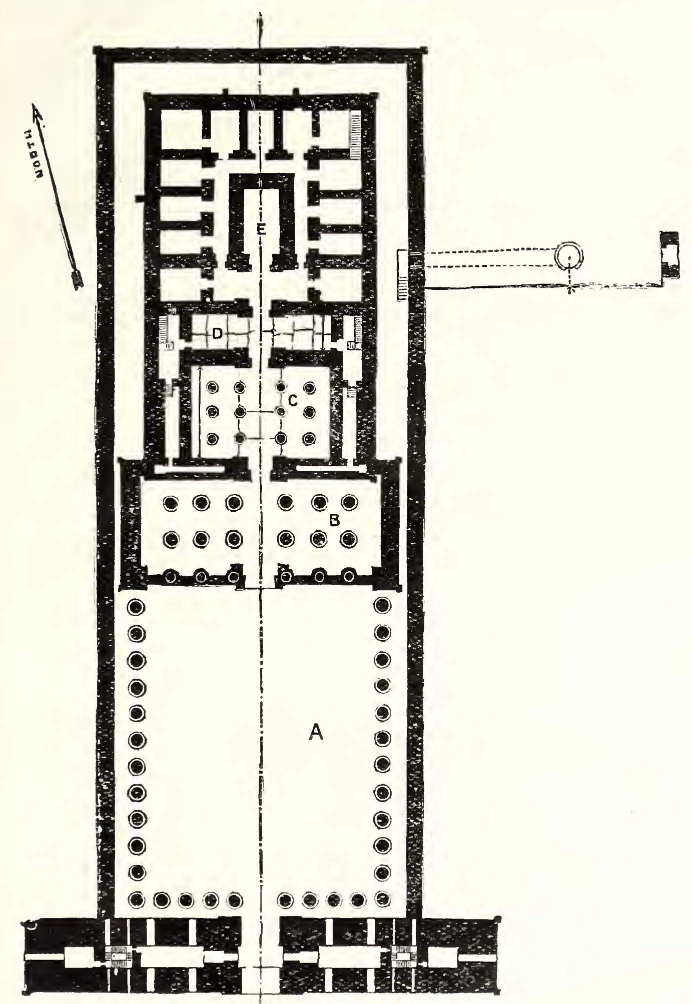
On the west bank of the river, about two miles south of Al-Kâb, on the skirts of the desert, lie the ruins of the ancient city called by the Egyptians **Nekhen** [hieroglyphs], and by the Greeks **Hierakonpolis**, because the chief god worshipped there was a hawk; the modern name of the hill near is **Kôm al-Aḥmar**, *i.e.*, "Red Hill." At this place Mr. Quibell discovered a number of important monuments of the Archaïc Period, including the remarkable green slate object with reliefs upon it, which has been commonly but erroneously called a "palette." This object appears to have been made for a king called Nār-mer, and is in the Egyptian Museum at Cairo; no visitor

who is interested in the archaïc art of Egypt should fail to see it. Prof. Naville has proved that the object probably contained the emblem or symbol of some god which occupied the circular hollow in the centre of it. This symbol was, no doubt, made of some valuable substance, perhaps of gold inlaid with precious stones, and was therefore stolen in ancient days. Here also was discovered the life-size **bronze statue of King Pepi I,** which illustrates the great skill of workers in bronze under the VIth dynasty. This also is in the Egyptian Museum at Cairo, and should certainly be inspected. Nekhen was in the earliest times the western half of the great city which we call Al-Kâb, and the fortifications of both halves were no doubt built on the same plan. The remains of a double wall and of a gate, on the east side, have been found there and justify this view. In the hills close by are several tombs of the Ancient and Middle Empires, and those of Kôm al-Aḥmar closely resemble those of Al-Kâb in construction.

Edfû.

Edfû, with 15,000 inhabitants, 515½ miles from Cairo, on the west bank of the river, was called in Egyptian Beḥuṭet, and in Coptic Atbô, whence the Arabic name Adfû, or Utfû; it was called by the Greeks Apollinopolis Magna, because a form of Horus, the Sun-god, was worshipped in the city. The crocodile and its worshippers were detested. The **Temple of Edfû,** for which alone both the ancient and modern towns were famous, occupied 180 years 3 months and 14 days in building, that is to say, it was begun during the reign of Ptolemy III, Euergetes I, 237 B.C., and finished 57 B.C. It resembles that of Denderah in many respects, but its complete condition marks it out as one of the most remarkable buildings in Egypt, and its splendid towers, about 112 feet high, make its general magnificence very striking. The space enclosed by the walls measures 450 feet by 120 feet; the front of the propylon from side to side measures about 252 feet. Passing through the door the visitor enters a court, around three sides of which runs a gallery supported on 32 pillars. The first and second halls, A, B, have 18 and 12 pillars respectively; passing through chambers C and D, the sanctuary E is reached, where stood a granite naos in which a figure of Horus, to whom the temple is dedicated, was preserved. This naos was made by Nectanebus I, a king of the XXXth dynasty, 378 B.C. The pylons are covered with battle scenes, and the walls are

inscribed with the names and sizes of the various chambers in the building, lists of names of places, etc. ; the name of the



Plan of the Great Temple of Edfû.

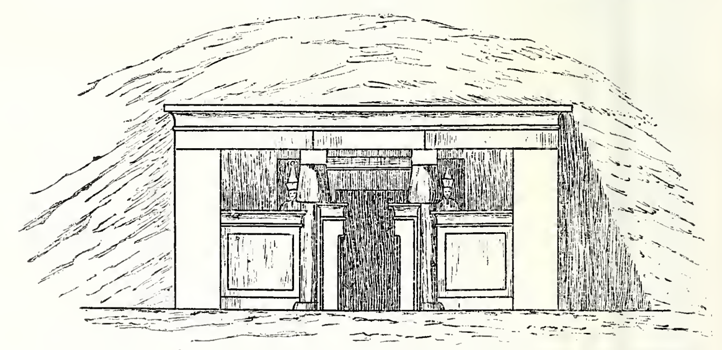
architect, I-em-ḥetep, or Imouthis, has also been inscribed From the south side of the pylons, and from a small chamber

on each side of the chamber C, staircases ascended to the roof. The **Mammisi**, *i.e.*, "Place of birth" of the god, was built by Ptolemy IX; the Bes-columns and the columns of the small court are of interest.

The credit of clearing out the temple of Edfû belongs to M. Mariette. Little more than 60 years ago the mounds of rubbish outside reached to the top of its walls, and certain parts of the roof were entirely covered over with houses and stables. Some years ago the great wall on the west side of the Edfû Temple collapsed, and there was reason to fear that the whole of the roofing of the temple would fall in likewise. Lord Cromer secured a grant of £E.1,500, and Monsieur **Barsanti** was despatched to rebuild the wall and repair any damage which the building had suffered through its fall. M. Barsanti completed the work of restoration in a most satisfactory manner, and the whole temple is now stronger than it has been for centuries.

Edfu to Berenice.

A few miles to the south of Edfû, on the eastern bank of the Nile, is the town of **Radasîyah**, with about 10,380 inhabitants, from which a road runs to the emerald mines of Mount Zâbarah; these lie about 40 miles from the town of **Berenice**



Temple of Seti I on the road between Radasîyah and Berenice. (From Lepsius.)

on the Red Sea, about 210 miles distant from Edfû. The road is a very old one, and was provided with wells at long intervals, and it was traversed by officials and others until the end of the fourteenth century of our era. About 45 kilometres from the Nile is an **ancient well**, which was, apparently,

either cleared out or deepened by Seti I, about 1370 B.C.; this king dug some new wells close by, and also built there a temple, with a rock-hewn sanctuary, which he dedicated to the god Åmen-Rā. The reliefs depict the king vanquishing the peoples of the Eastern Desert, and making offerings to the gods. This temple was discovered by Cailliaud, who described it in his *Travels in the Oasis of Thebes*, London, 1822. The mining district, or perhaps the whole road, seems to have been under the Egyptian Governor of Nubia, for a stele there makes mention of Ani, the commander of the Matchai, or Nubian soldiers, whose duty was to protect caravans returning from the mines with emeralds and mother-of-emerald to Egypt. This desert station seems to have been commanded by a Nubian, even in the days of Åmen-ḥetep III, for Merimes, "royal son "of Kesh," has left his name there. The official who dug the well or wells for Seti I was called Ani. The local goddess of the place was called Āāsith, the correct reading of whose name we owe to M. Golénischeff; she is represented on horseback, and as she holds a shield in one hand she was a goddess of war, probably of Asiatic origin. The town of Berenice Troglodytica was founded by Ptolemy II, about 275 B.C., no doubt on the site of a much older seaport town, where the products of India were disembarked and sent across the desert routes to large towns on the Nile, or along the desert road which followed the sea-coast to the cities at the head of the Delta.* In 1905 the Egyptian Government established a station of the Mining Department, and made the town the headquarters for the Special Police Corps. Rough roads are being made between the mining districts and the Nile, and the ancient wells are being cleared out. The object is to make lines of communication between the Red Sea and the Nile, for through these material and food-stuffs and labour can be economically despatched to the mining centres, and the various districts kept under effective control. The first well on the Edfû road to the mines, 12 miles from the Nile, has been reached by motor-car in forty-five minutes, and the third well, 45·50 miles from the Nile, in two and a quarter hours by motor-cycle, as against eleven hours by trotting camel.

The next station on the railway is **Silwah.** Nearly opposite to this town, on the west bank, is Al-Ḥôsh, where there are

* *See* Ball, *The Geography and Geology of South-Eastern Egypt*, Cairo, 1912, pp. 3, 11.

numerous quarries, which do not appear to have been worked before the Roman period. Quite close to **Al-Ḥôsh** is a small valley called **Shaṭṭ ar-Rigâl.** Here, near the river bank, is a relief containing a figure of one of the Ȧntef kings standing in the presence of King Menthu-ḥetep III (?) (☉ ⌒ ⚲) Neb-ḥept-Rā. The former is styled "Son of the Sun," and is followed by his chancellor, Khati; the latter wears the crowns of the South and North, , and is called "King of the South and "North," , and is followed by the "royal mother," Ȧāḥet. This scene is usually described as the paying of an act of homage by Ȧntef to Menthu-ḥetep, but this is not certain; it was discovered by Mr. Harris, who made a drawing of it about 60 years ago.

Ḥagar (or Gabal) **Silsilah,** 541½ miles from Cairo, on the east and west banks of the river, derives its name probably not from the Arabic word of like sound meaning "chain," but from the Coptic tchôltchel, meaning "stone wall"; the place is usually called *Khennu* in hieroglyphic texts, and is commonly known to Europeans as the **Quarries of Silsilah.** The ancient Egyptians here quarried the greater part of the sandstone used by them in their buildings at Thebes, and the names of the kings inscribed in the caves here show that these quarries were used from the earliest to the latest periods. The most extensive of these are to be found on the east bank of the river, but on the west bank we have the little **rock-hewn temple of Ḥeru-em-ḥeb,** the last king of the XVIIIth dynasty, conquering the Ethiopians; here we have figures of this king, and figures of Seti I, Rameses II his son, Menephthah, etc. At Silsilah the Nile was worshipped, and the little temple which Rameses II built in this place seems to have been dedicated chiefly to it. There are numerous inscriptions in many places in many of the quarries, and these and the figures they accompany are well worthy of examination for those who have the time. At Silsilah the Nile narrows very much, and it was generally thought that a cataract once existed here; there is, however, no evidence in support of this view, and the true channel of the Nile lies on the other side of the mountain.

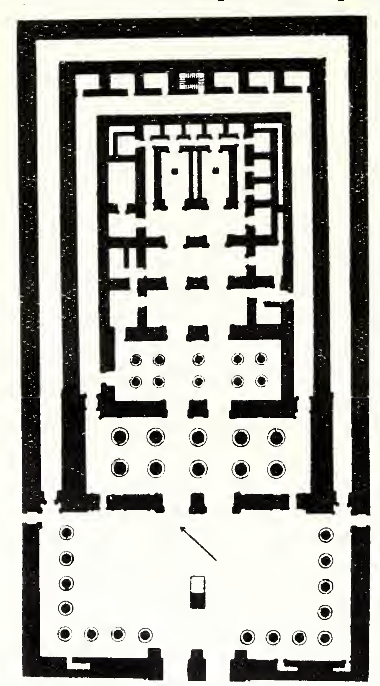
Kôm Ombos, 556½ miles from Cairo, on the east bank of the Nile, was an important place at all periods of Egyptian history; it was called by the Egyptians Per-Sebek, "the

"temple of Sebek" (the crocodile god), and Nubit and Embô by the Copts. The oldest object here is a sandstone gateway which Thothmes III dedicated to the god Sebek. The ruins of the temple and other buildings at Kôm Ombos are among the most striking in Egypt, but, until the clearance of the site which M. de Morgan made in 1893–4, it was impossible to get an exact idea of their arrangement. It is pretty certain that a temple dedicated to some god must have stood here in the Early Empire, and we know from M. Maspero's discoveries here in 1882, that Amenophis I and Thothmes III, kings of the XVIIIth dynasty, carried out repairs on the temple which was in existence in their days; but at the present time no parts of the buildings at Kôm Ombos are older than the reigns of the Ptolemies. The ruins may be thus classified:—The Mammisi, the Great Temple, and the Chapel of Hathor; and all these buildings were enclosed within a surrounding wall.

The **Mammisi**, or small temple wherein the festivals of the birth of the gods were celebrated, stood in front of the great temple, to the left; it consisted of a small courtyard, hall of columns, and the shrine. It was built by Ptolemy IX, who is depicted on the walls making offerings to Sebek, Hathor, Thoth, and other deities. The best relief remaining (*see* de Morgan, *Kom Ombos*, p. 50) is on the north wall, and represents the king on a fowling expedition through marshes much frequented by water fowl.

The **Great Temple.**—The pylon of the great temple has almost entirely disappeared, and only a part of the central pillar and south half remains. A few of the scenes are in good preservation, and represent the Emperor Domitian making offerings to the gods. Passing through the pylon the visitor entered a large courtyard; on three sides was a colonnade containing 16 pillars, and in the middle was an altar. The large hall of 10 columns was next entered, and access was obtained through two doors to another, but smaller, hall of 10 columns. The shrines of the gods Sebek and Ḥeru-ur, *i.e.*, "Horus the elder" (Haroëris), to whom the temple was dedicated, were approached through three chambers, each having two doors, and round the whole of this section of the building ran a corridor, which could be entered through a door on the left into the second hall of columns, and a door on the right in the first chamber beyond. At the sides and ends of the sanctuary are numerous small chambers, which were used probably either for the

performance of ceremonies in connection with the worship of the gods or by the priests. The reliefs on the courtyard represent Tiberius Cæsar making offerings to Ḥeru-ur, hawk-headed, Sebek, crocodile-headed, Osiris Unnefer, and other gods. The colouring of the relief in which this Emperor is seen making an offering to the lady of Ombos and Khensu (Column IV) is in an admirable state of preservation. On the façade is an interesting scene in which the gods Horus and Thoth are represented pouring out the water of life over Ptolemy Neos Dionysos. The reliefs in the first hall of columns are very fine examples of the decorative work of the period, and worthy of notice are:—(*West Wall*): The king in the company of Ḥeru-ur, Isis, Nut, and Thoth; the king adoring four mythical monsters, one of which has four lions' heads. (*East Wall*): Harpokrates, seated in the Sun's disk in a boat, accompanied by Shu, Isis, Nephthys, Maāt, Nut, etc.; the 14 *kas* or "doubles" of the king; the king making offerings to the gods. (*Ceiling*): The gods of the stars in boats in the heavens, gods and goddesses, etc. Here it is interesting to note that certain sections of the ceiling are divided by lines into squares with the object of assisting the draughtsman and sculptor, and that the plan of the original design was changed, for unfinished figures of gods may be seen on it in quite different positions. In the small hall of columns are reliefs similar in character to those found in the larger hall. An examination of the great temple shows that the building was carried out on a definite plan, and that the decoration of the walls with reliefs was only begun after the builders had finished their work. The oldest reliefs and texts belong to the period of



Plan of the Temple of Kôm Ombos.

the Ptolemies, and are found in the main buildings, and begin with the shrines of the gods Sebek and Ḥeru-ur; the reliefs and inscriptions of the courtyard belong to the Roman period.

The **Chapel of Hathor** also belongs to the Roman period, and seems not to have been completed. Drawings made in the early part of the nineteenth century show that the ruins of the temples and other buildings were in a much better state of preservation than they are at present, and as the ruin which has fallen upon them since that date cannot be justly attributed to the natives, it must be due to the erosion of the bank by the waters of the Nile, which has for centuries slowly but surely been eating its way into it. The building which Amenophis I erected there was destroyed by the encroachment of its waters, and, according to M. de Morgan, a strip of ground from the front of the temple nearly 20 feet in width has been swallowed up in the waters during the last 60 years, and with it there probably went the greater part of the Mammisi. This being so, all lovers of antiquities will rejoice that a stone platform has been built in front of the temple to prevent the further destruction of it by the Nile. Some years ago large portions of the walls of the Temple of Kôm Ombo collapsed, but thanks to the prompt measures taken by the Government, and the skill of M. Barsanti, the damage has been made good, and the ruin of the whole building arrested.

The stations on the railway and the principal villages between Silsilah and Aswân are: **Darâw,** with about 15,000 inhabitants; **Al-Khaṭṭârah,** with over 1,300 inhabitants; and **Al-Gazîrah,** with about 1,500 inhabitants. Two miles farther on we reach Aswân.

Aswân,* the Island of Elephantine, and Philæ.

ASSUAN (ASWÂN).

Cook's Office.—Grand Hotel.

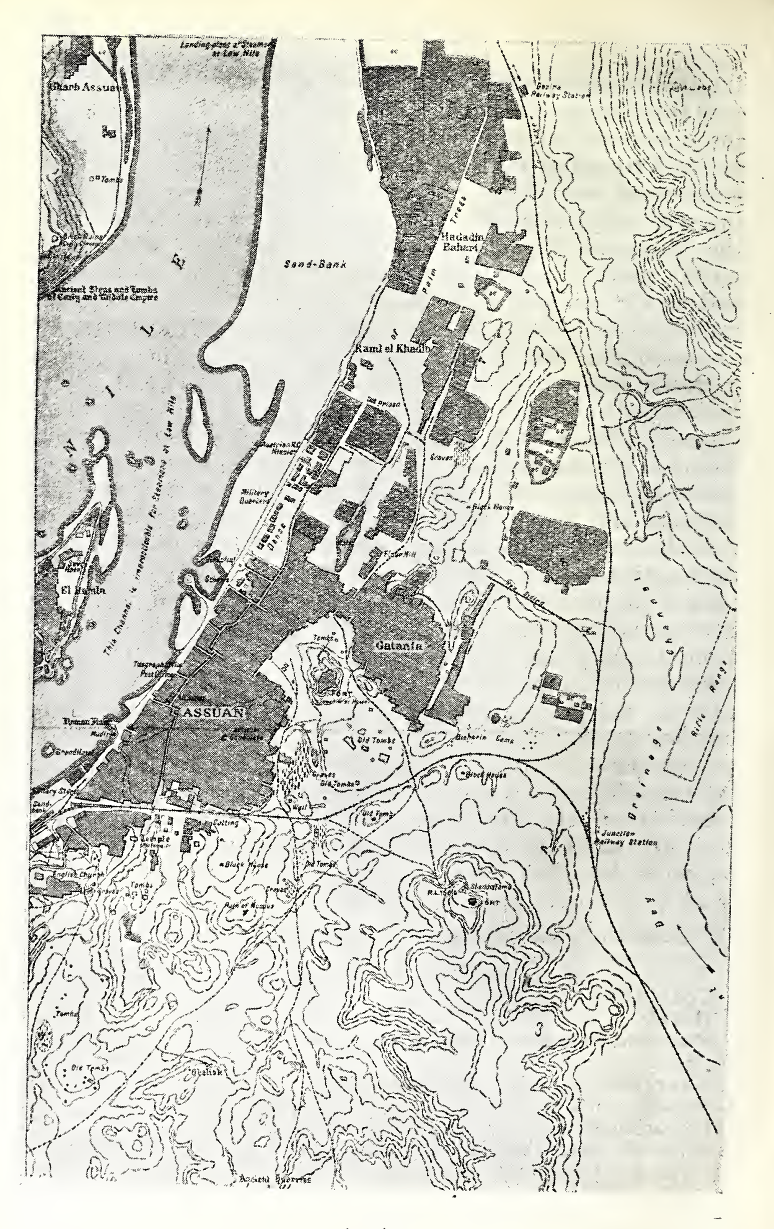
Hotels.—Cataract Hotel, Savoy Hotel, Grand Hotel.

Post and Telegraph Office, north of the Mudiriyah on the bank of the river.

Churches.—St. Mark's (English), close to Cataract Hotel. **Roman Catholic,** north of the town.

Excursions to the Island of Elephantine and Rock Tombs; Philæ and the Nile Dam; the Granite Quarries, etc.

* The Arabic form adopted by the eminent Arab geographer, Yâḳût, is اسوان Uswân.


Landing-place of Steamers at Low Nile
Sand-Bank
Palm Trees
Hadadin Baheri
Raml el Khadib
Prison
Military Quarters
Gatania
ASSUAN
Bisharin Camp
Old Tombs
Block House
Junction Railway Station
Rifle Range
Drainage Channel
English Church
Obelisk
Ancient Quarries

Aswân.

Aswân (or Uswân), with about 15,000 inhabitants (Western Aswân 2,500), the southern limit of Egypt proper, 587 miles from Cairo, on the east bank of the river, was called in Egyptian, **Sunt**, in Coptic, Souan; the Greek town of Syene stood on the slope of a hill to the south-west of the present town. Properly speaking, the original frontier town was situated on the Island of Elephantine, which the early dynastic Egyptians called Abu, *i.e.*, "elephant," perhaps on account of the shape of some part of it, or perhaps because it was the place of barter for tusks of elephants or ivory. This old town was the metropolis of the first nome of Upper Egypt, [hieroglyphs], Ta-sti. Under dynasties I–VI it was the frontier town of Egypt on the south, and was the starting point of all expeditions into the Sûdân. Under the XIIth dynasty the frontier town on the south was Samnah, in the Second Cataract, and Abu, or Sunt, lost some of its importance. At the close of the XXth dynasty this town became once more the chief southern frontier city, and continued to be so until the rule of the Ptolemies. As we approach the time of the Ptolemies, the name Sunnu, *i.e.*, the town on the east bank of the Nile, from whence comes the Arabic name Aswân, takes the place of Abu. The town obtained great notoriety among the Greeks from the fact that Eratosthenes and Ptolemy considered it to lie on the Tropic of Cancer, and to be the most northerly point where, at the time of the summer solstice, the sun's rays fell vertically; as a matter of fact, however, the town lies 0° 37′ 23″ north of the Tropic of Cancer. There was a famous well there, into which the sun was said to shine at the summer solstice, and to illuminate it in every part. In the sixth century B.C. there was a large colony of Jews in Aswân, and the God of the Hebrews was worshipped there. In the time of the Romans three cohorts were stationed here, and the town was of considerable importance. In the twelfth century of our era it was the seat of a bishop. Of its size in ancient days nothing definite can be said, but Arabic writers describe it as a flourishing town, and they relate that a plague once swept off 20,000 of its inhabitants. Aswân was famous for its wine in Ptolemaïc times. The town has suffered greatly at the hands of the Arabs and Turks on the north, and from the Nubians, by whom it was nearly destroyed in the twelfth century, on the south. The oldest ruins in the town are those of a Ptolemaïc temple, which

are still visible; it was built by Euergetes I, and was dedicated to Isis of Syene.

The **Island of Elephantine** lies a little to the north of the First Cataract, just opposite Aswân, and has been famous in all ages as the key of Egypt from the south; the Romans garrisoned it with numerous troops, and it represented the southern limit of their empire. The island itself was very fertile, and it is said that its vines and fig trees retained their leaves throughout the year. The kings of the Vth dynasty sprang from Elephantine. The gods worshipped here by the Egyptians were called Khnemu, Sati, and Anuqet, and on this island Amenophis III built a temple, remains of which were visible in the early part of last century. "A little above "Elephantine is the lesser cataract, where the boatmen "exhibit a sort of spectacle to the governors. The cataract "is in the middle of the river, and is formed by a ridge of "rocks, the upper part of which is level, and thus capable "of receiving the river, but terminating in a precipice, where "the water dashes down. On each side towards the land "there is a stream, up which is the chief ascent for vessels. "The boatmen sail up by this stream, and, dropping down "to the cataract, are impelled with the boat to the precipice, "the crew and the boats escaping unhurt." (Strabo, Bk. xvii, chap. i, 49, Falconer's translation.) Thus it appears that "shooting the cataract" is a very old amusement.

Of the famous **Nilometer** which stood here Strabo says: "The Nilometer is a well upon the banks of the Nile, con-"structed of close-fitting stones, on which are marked the "greatest, least, and mean risings of the Nile; for the water in "the well and in the river rises and subsides simultaneously. "Upon the wall of the well are lines which indicate the com-"plete rise of the river, and other degrees of its rising. Those "who examine these marks communicate the result to the public "for their information. For it is known long before, by these "marks, and by the time elapsed from the commencement, what "the future rise of the river will be, and notice is given of it. "This information is of service to the husbandmen with refer-"ence to the distribution of the water; for the purpose also of "attending to the embankments, canals, and other things of "this kind. It is of use also to the governors, who fix the "revenue; for the greater the rise of the river, the greater it is "expected will be the revenue." According to Plutarch, the Nile rose at Elephantine to the height of 28 cubits; a very

interesting text at Edfû states that if the river rises 24 cubits $3\frac{1}{4}$ hands at Elephantine it will water the country satisfactorily. The Nilometer at Elephantine is on the east side of the island, opposite to the town of Aswân, at the foot of the cataract. To-day it consists of a single stairway of 52 steps, parallel to the quay-wall, after which it turns to the east, and opens on the river through a doorway in the wall. In 1799, besides this stairway, there was an upper stairway, about 20 metres long, leading westwards into a small room through which the Nilometer was reached. All this upper stairway has disappeared except the bottom seven steps. There are two scales, one the scale of 1869 divided into piks and kirâts, and the marble scale now in use, which is divided metrically, and numbered to show the height above mean sea-level. On the west wall are the remains of two other scales, one Arabic, and one numbered with Greek numerals; the latter was used in late Egyptian times. On the wall of the stairway are the remains of Greek inscriptions dating from the reigns of several of the Roman Emperors, and giving the year of the reign, and the height of the Nile flood. From these it is clear that about A.D. 100 the Nile often rose to 24 and sometimes above 25 cubits on the Nilometer scale, so that the high floods of that time reached the level of 91 metres above sea-level. To-day they reach 94 metres as in 1874, or 3 metres above the level of 1900 years ago, corresponding to a rise of the bed of 0·16 metre per century at this point (Lyons, *Physiography*, p. 315). Near the Nilometer is the **Aswân Museum,** containing a collection of antiquities from the neighbourhood.

In the year 1904 the natives of the Island of Elephantine discovered a collection of Aramean papyri in one of the mounds, and two years later Herr Rubensohn began to make a series of excavations on the same site, on behalf of the Royal Museum in Berlin. In 1907–8 the work was continued by Herren Zucker and Honroth. The German excavations were made in the western half of the island, and in 1907–8 the eastern half was excavated by Messieurs Clermont-Ganneau and Clédat. Both sets of excavations yielded important results, and the objects brought to light supply much information about the later history of Elephantine, from the XXVIth dynasty downwards. In the ruins of a portion of the temple of Nectanebus, blocks from a temple built by a king of the XVIIIth dynasty were found.

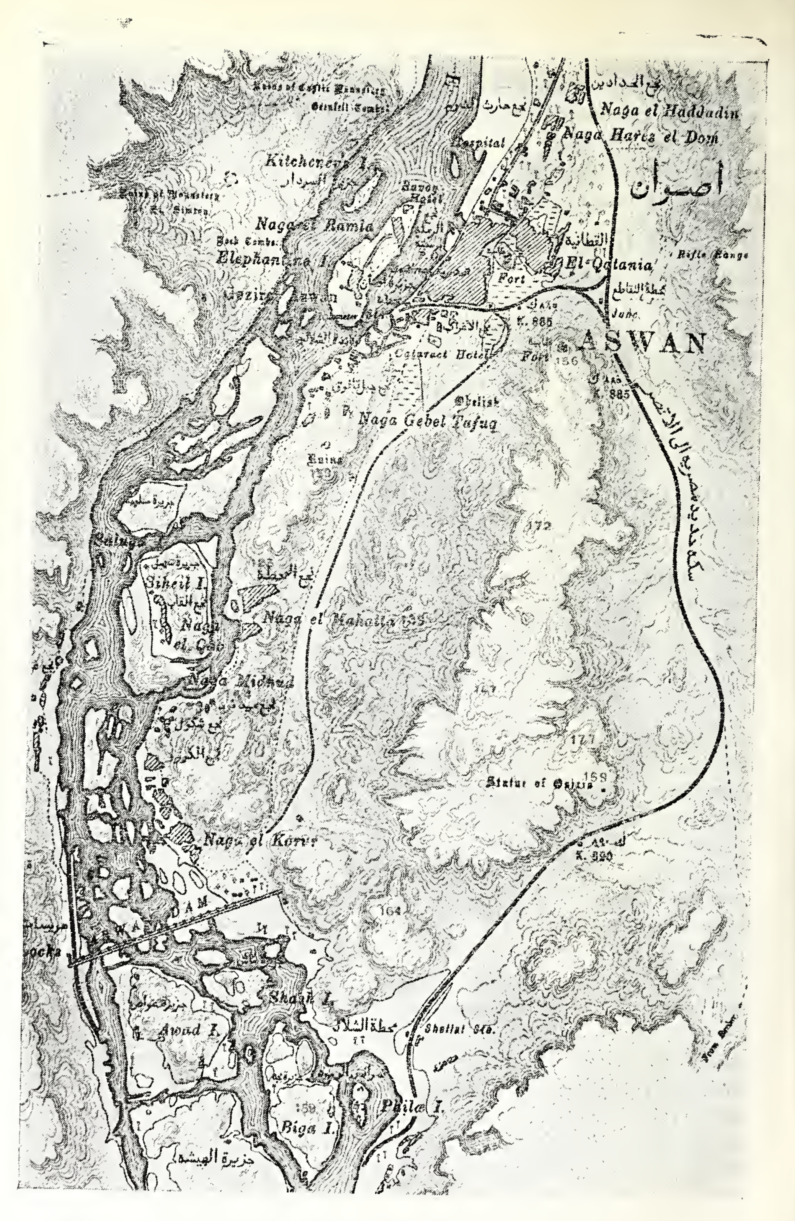
A mile or so to the north of the monastery stands the

bold hill in the sides of which are the **rock-hewn tombs** which General Sir F. W. (now Field-Marshal Lord) Grenfell, G.C.B., excavated; this hill is situated in Western Aswân, the Souan en-Pement of the Copts, and is the Contra Syene of the classical authors. The tombs are hewn out of the rock, tier above tier, and the most important of these were reached by a **stone staircase**, with a sarcophagus slide, which to this day remains nearly complete, and is one of the most interesting antiquities in Egypt. At the top of the staircase are four chambers, two on each side, from which coffins and mummies were taken out in 1886. The tombs in this hill may be roughly divided into three groups. The **first group** was hewn in the best and thickest layer of stone in the top of the hill, and was made for the rulers of Elephantine who lived during the VIth and XIIth dynasties. The **second group** is composed of tombs of different periods; they are hewn out of a lower layer of stone, and are not of so much importance. The **third group**, made during the Roman occupation of Egypt, lies at a comparatively little height above the river. All these tombs were broken into at a very early period, and the largest of them formed a common sepulchre for people of all classes from the XXVIth dynasty downwards. They were found filled with broken coffins and mummies and sepulchral stelæ, etc., and everything showed how degraded Egyptian funereal art had become when these bodies were buried there.

The double tomb at the head of the staircase was made for **Sabnȧ** and **Mekhu**; the former was a dignitary of high rank who lived during the reign of Pepi II, a king of the VIth dynasty, whose prenomen (☉ 𓄤 𓂓), Nefer-ka-Rā, is inscribed on the left side of the doorway; the latter was a wealthy *smer*, prince and inspector, who enjoyed great power under Pepi II. The paintings on the walls and the proto-Doric columns which support the roof are interesting, and its fine state of preservation and position make it one of the most valuable monuments of that early period. Of Mekhu's career nothing is known, but from the inscription in the tomb of his son Sabnȧ it is clear that he died in the Sûdân in the performance of some mission. When the news of his death reached Sabnȧ this pious son set out with 100 asses laden with honey, oils, sheets of linen, etc., for the country of the Blacks. Having reached his destination

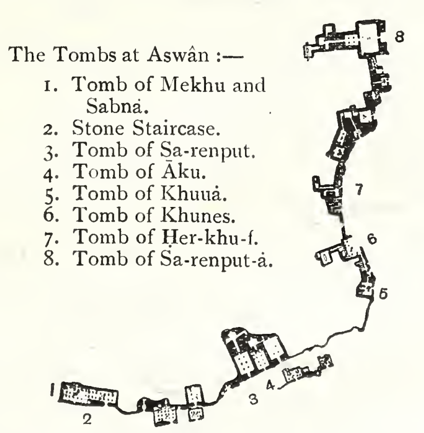
he took possession of his father's body, and put it in a coffin which he loaded on an ass, and then returned to Aswân. On his arrival the body of his father was properly embalmed, and Sabnȧ buried him with the state which the high rank of the deceased demanded. A little farther northward is the small tomb of [hieroglyphs], **Ḥeqȧb,** and beyond this is the fine, large tomb hewn originally for **Sa-Renput,** one of the old feudal hereditary governors of Elephantine, but it was appropriated by **Nub-kau-Rā-nekht.** He was the governor of the district of the cataract, and the general who commanded a lightly-armed body of soldiers called "runners"; he lived during the reign of Usertsen I, the second king of the XIIth dynasty, and his tomb must have been one of the earliest hewn there during that period.

The tomb of **Pepinekht** (No. 9) is also of considerable importance. This distinguished man made two raids into the Sûdân by the order of the king, and on each occasion he captured a large number of men and children who became slaves in Egypt. On another occasion he was sent against the Āamu, or dwellers in the Eastern Desert, and inflicted punishment on them because they had killed an Egyptian officer and his men whilst they were building a ship which was intended to sail to Punt. No details of the fight are given, but the facts recorded in the inscription are interesting because they show that the rule of the Egyptians was not popular in all parts of the Sûdân. Another interesting tomb is that of **Ḥer-khuf,** who was governor of Elephantine. The inscriptions record that King Mer-en-Rā sent him with his father to open up a road in the country of Ȧam in the Sûdân, and that he performed his mission in seven months. The king next sent him alone, and he passed through the countries of Arthet, Terres, etc., and brought back a good load of Sûdânî produce. This mission occupied eight months. A third time he went to Ȧam, and he joined the chief of the country in making a raid upon the Libyans; the raid was successful, and he came back with 300 asses laden with myrrh, ebony, oil, grain, leopard skins, ivory, boomerangs, etc. The chiefs of the countries through which he passed, seeing how strong his force was, sent him gifts of cattle and sheep, and on his way home he met the famous warrior Unȧ, who had been sent up the river by the king with a boatload of dates, beer, wine, bread, etc., for his needs. Subsequently



Aswân and Environs.

Ḥer-khuf went again to Åam, and on his return he sent a message to the new king Pepi II saying that he had brought back large quantities of Sûdânî products, including a *ṭeng* [hieroglyphs] or pygmy. It may be noted in passing that this word survives in Amharic under the form *denk* ድንክ፡ In reply to this message Pepi II sent a letter to Ḥer-khuf, dated in the second year of his reign, a copy of which was cut on the outside of his tomb. In this letter the king acknowledges the great service which his loyal servant has rendered to him, and promises to bestow great honours upon the son of his son. He then orders him to bring the pygmy which he has transported from the "Land of the Spirits" to him at Memphis,



The Tombs at Aswân :—
1. Tomb of Mekhu and Sabnȧ.
2. Stone Staircase.
3. Tomb of Ṣa-renput.
4. Tomb of Āku.
5. Tomb of Khuuȧ.
6. Tomb of Khunes.
7. Tomb of Ḥer-khu-f.
8. Tomb of Sa-renput-ȧ.

that he may dance before the king and rejoice His Majesty's heart, and says, "When he embarketh with thee in the boat, "thou shalt appoint trustworthy servants to be about him, and "on each side of the boat, and take heed that he falleth not "into the water. When he sleepeth at night appoint also "trustworthy servants who shall sleep by his side in his sleep- "ing place, and they shall visit him ten times during the night "(*i.e.*, once every hour). For My Majesty wisheth to see this "pygmy more than the tributes of Sinai and Punt. If thou "reachest [my] capital and this pygmy shall be with thee, alive, "and in good health, and content, My Majesty will do for thee "a greater thing than that which was done for the chancellor

"of the god, Ba-ur-ṭeṭ, in the time of King Ȧssȧ, in accordance "with the greatness of the heartfelt wish of My Majesty to see "this pygmy."

The following are the principal tombs at Aswân :—

1. Tomb of **Mekhu and Sabnȧ**, [hieroglyphs] and [hieroglyphs]. In this tomb is an interesting scene of the deceased in a boat spearing fish. In front of the tomb of Mekhu is a staircase by which sarcophagi were rolled up into the tombs; down the centre is a flat surface with steps on each side of it. The staircase was first cleared of sand in 1886, and in the same year the four chambers near the top were discovered. 2. Tomb of **Ḥeq-ȧb**, [hieroglyphs]. 3. Tomb of **Sa-renput**, [hieroglyphs], son of Satet-hetep. (No. 31.) 4. Tomb of **Āku**, [hieroglyphs]. (No. 32.) 5. Tomb of **Khuuȧ**, [hieroglyphs]. 6. Tomb of Khunes (?). 7. Tomb of **Khennu-sesu**, [hieroglyphs]. 8. Tomb of **Ḥer-khu-f**, [hieroglyphs]. 9. Tomb of **Pepi-nekht**, [hieroglyphs] 10. Tomb of **Sen-mes**, [hieroglyphs]. 11. Tomb of **Sa-renput-ȧ**, [hieroglyphs]. This tomb is the finest of all the tombs at Aswân. It faces the north, and lies round the bend of the mountain. Before it is a spacious court, which was enclosed by a wall; the limestone jambs of the door were ornamented with reliefs and hieroglyphics, and were, until recently, still *in situ*. At the south end of the court was a portico supported by eight rectangular pillars. The first chamber contains four pillars, and leads through a wide corridor to another chamber with two pillars; in this last are two flights of steps which lead to two other chambers. The walls of the court are without reliefs, but the pillars of the portico are decorated with figures of the deceased and with inscriptions on each of their sides. The face of the tomb is inscribed with a long text in which the deceased tells how he "filled the heart of the king" (*i.e.*, satisfied him), and

enumerates all the work which he did in Nubia on behalf of his lord; to the left of the doorway is a relief in which Sa-renput-å is seen in a boat spearing fish (?), and to the right we have a representation of ancestor worship. On the wall of the first chamber inside is a long inscription which fortunately enables us to date the tomb, for it mentions the prenomen Kheper-ka-Rā of Usertsen I, a king of the XIIth dynasty; elsewhere are depicted a number of boats, fishing scenes, etc. The other scenes in the tomb refer to the storage of wheat, jars of wine, etc. When the writer first cleared this tomb for Sir Francis Grenfell in 1886, the shrine, containing a figure of Sa-renput-å, was *in situ*, and was of considerable interest. In the sand which filled the first chamber almost to the ceiling were found the bodies of two or three Muḥammadans, who appeared to have been hastily buried there. The shaft, which is entered from the right side of the second chamber by means of a flight of steps, was cleared out, and two or more small chambers, lined and barricaded with unbaked bricks, were entered. In the floor of one of these an entrance to a further pit was made, but the air was so foul that candles ceased to burn, and the work had to be abandoned.

Lower down in the hill are the following tombs:—1. Tomb of **Sebek-ḥetep**, . 2. Tomb of **Khnemu-khenu**, . 3. Tomb of **Thethå**, . 4. Tomb of **Sen**, . 5. Tomb of **Åba**, .

In 1902 and 1904 Lady William Cecil excavated a large number of the tombs which lie to the south of the Grenfell group, but nothing of importance was found in them. Nearly every tomb had been used by two occupants at least. For an account of the work done see *Annales du Service*, tom. iv, p. 51 *ff*; and tom. vi, pp. 273–283.

The **Monastery of St. Simon**, or Simeon.—On the western bank of the Nile, at about the same height as the southern point of the Island of Elephantine, begins the valley which leads to the monastery called after the name of Saint Simon, or Simeon. It is a large, strong building, half monastery, half fortress, and is said to have been abandoned by the monks in the thirteenth century, but the statement lacks confirmation;

architecturally it is of very considerable interest. It was wholly surrounded by a wall from about 19 to 23 feet high, the lower part, which was sunk in the rock, being built of stone, and the upper part of mud brick; within this wall lay all the monastery buildings. The monks lived in the north tower, in the upper toreys, where there were several cells opening out on each side of a long corridor; on the ramparts were a number of hiding places for the watchmen, and there are evidences that the building was added to from time to time. The church consisted of a choir, two sacristies, and a nave, the whole being covered with a vaulted roof, which was supported by columns. In the church are the remains of a fine fresco in the Byzantine style, which formerly contained the figures of Christ and 24 saints, etc., and also a picture of Christ enthroned. In a small rock-hewn chapel at the foot of the staircase which leads to the corridor, the walls are ornamented with figures of our Lord's Apostles or Disciples. Every here and there are found inscriptions in Coptic and Arabic. The Coptic texts usually contain prayers to God that He may show mercy upon their writers, who regard the visit to the monastery as a meritorious act; the oldest Arabic inscription states that a certain Mutammar 'Ali visited the monastery in the year A.H. 694, *i.e.*, towards the end of the thirteenth century of our era. About a fifth of a mile to the east of the monastery lay the ancient cemetery, which was cleared out about 27 years ago; the bodies of the monks had been embalmed after a fashion, but they fell to pieces when touched. M. Clédat made excavations here in 1903–4 and brought to light some 34 Coptic stelæ. If the position of the Copts in Egypt in the thirteenth century be considered, it will be seen to be extremely unlikely that the monastery of St. Simon was flourishing at that time, and it is far more probable that it was deserted many scores of years before. From Abû Ṣalîḥ, the Armenian, we learn that there were several churches and monasteries at Aswân. Thus he says that on the Island of Aswân, *i.e.*, Elephantine, there was a church in which was laid the body of Abû Hadrî, and near this church was a monastery, which was in ruins in the days of Abû Ṣalîḥ, with 300 cells for monks. There were also the churches of Saint Mennas, the Virgin Mary, and the archangels Gabriel and Michael. The church of St. Ibsâdah stood on the citadel of Aswân, on the bank of the Nile, and the saint was said to have the power of walking upon the water. The monastery of Abû Hadrî was "on the mountain

on the west," and it is probable that the monastery now called by the name of St. Simon is here referred to.

The **gold-mines**, which are often referred to by writers on Aswân, appear to have been situated in the Western desert and in the Wâdî al-'Alâḳî, to the south-east of Aswân, in the country of the Bishârîn; these were the mines which were worked by the Egyptians in the XVIIIth, XIXth, and later dynasties, and after them by the Romans and Arabs. Modern miners consider the ancient methods of working them to have been very wasteful. The **clay quarries** were situated on the east bank of the Nile, just opposite to Elephantine Island, and were famous for red and yellow ochres, and for a fine clay, called the "clay of art," which was much used in making jars to hold Aswân wine. These quarries were worked in dynastic times, and the stratum of clay was followed by the miners to very considerable distances into the mountains; the entrance to the workings is buried under the sand. Aswân was as famous for its **granite quarries**, which lie to the left of the railway in going to Shallâl, as Silsilah was for its sandstone. The Egyptian kings were in the habit of sending to Aswân for granite to make sarcophagi, temples, obelisks, etc., and it will be remembered that Unȧ was sent there to bring back in barges granite for the use of Pepi I, a king of the VIth dynasty. It is probable that the granite slabs which cover the pyramid of Mycerinus (IVth dynasty) were brought from Aswân. The undetached **obelisk**, which still lies in the northern quarry, is an interesting object; in the southern quarry are unfinished colossal statues, &c. Near the quarries are two ancient **Arab cemeteries**, in which are a number of sandstone gravestones, many of them formed from stones taken from Ptolemaïc buildings, inscribed in Kûfî* characters with the names of the Muḥammadans buried there, and the year, month, and day on which they died. We learn from them that natives of Edfû and other parts of Egypt were sometimes brought here and buried. The following translations will illustrate the contents of these interesting monuments:—

I. "In the name of God, the Compassionate, the Merciful. This

* A kind of Arabic writing in which very old copies of the Ḳur'ân, etc., are written; it takes its name from Kûfah, الكوفة *Al-Kufah*, a town on the Euphrates. Kûfah was one of the chief cities of 'Irâḳ, and is famous in the Muḥammadan world because Muḥammad and his immediate successors dwelt there. Enoch lived here, the Ark was built here, the boiling waters of the Flood first burst out here, and Abraham had a place of prayer set apart here.

"is a sufficient announcement for men; and (it is revealed) that they "may be warned thereby, and that they may know that He is one "God, and that the discreet may remember. O God, bless Muḥammad "the Prophet and his family and save (them), and have mercy upon "Thy servant that hath need of Thy mercy, Ja'far, son of Aḥmad, "son of 'Alî, son of Muḥammad, son of Ḳâsim, son of 'Abd aṣ-Ṣamad. "He died on Thursday, when six days (nights) were past (the 6th) "of al-Muḥarram, in the year 418 (A.D. 1027). May the mercy of "God be upon him and His favour."

II. "In the name of God, the Compassionate, the Merciful. "Verily those who say, 'Our Lord is God' and then walk uprightly, "upon them shall the angels descend (saying), 'Fear ye not, neither "be ye sad, but rejoice ye in the Paradise which ye have been "promised.' O God, bless Muhammad the Prophet and his family "the pure and save (them). There died Ibrahîm, son of Al-Ḥusain, "son of Isḥâḳ, son of Ya'ḳûb, son of Isḥâḳ, on Saturday, when "eight (nights) remained (the 21st) of the latter Rabî', in the year "420 (A.D. 1029)."

III. "In the name of God, the Compassionate, the Merciful. "Hasten unto forgiveness from your Lord and a Paradise the width "whereof is (as) the heavens and the earth, which is prepared for the "Godfearing. Blessed be He Who, if He pleased, could give thee "better than that, (to wit) gardens beneath which flow streams, and "could give thee palaces. O God, bless Muḥammad the Prophet and "his family and save (them), and have mercy on Thy servant that "hath need of Thy mercy, Ismâ'îl, son of Al-Ḥusain, son of Isḥâḳ, "son of Ya'ḳûb, son of Isḥâḳ. He died on Monday, when twenty "and three (nights) were passed (on the 23rd) of Rajab, in the year "431 (A.D. 1040). The mercy of God be upon him, and His for-"giveness, and His favour be upon him."

In the desert between Aswân and Shallâl are many inscriptions to which numbers were affixed by M. de Morgan; here also are the remains of an ancient massive brick wall built to protect the villages on the cataract.

The **First Cataract,** called Shallâl by the Arabs, begins a little to the south of Aswân, and ends a little to the north of the Island of Philæ; six great cataracts are found on the Nile, but this is the most generally known. Here the Nile becomes narrow and flows between two mountains, which descend nearly perpendicularly to the river, the course of which is obstructed by huge boulders and small rocky islands and barriers, which stand on different levels, and cause the falls of water which have given this part of the river its name. On the west side the obstacles are not so numerous as on the east, and sailing and rowing boats can ascend the cataract on this side when the river is high. The noise made by the water is at times very great, but it has been greatly exaggerated by both ancient and modern travellers, some of whom ventured to assert

that the "water fell from several places in the mountain more "than 200 feet." Some ancient writers asserted that the fountains of the Nile were in this cataract, and Herodotus * reports that an official of the treasury of Neith at Sais stated that the source of the Nile was here. Many of the rocks here are inscribed with the names of kings who reigned during the Middle Empire; in many places on the little islands in the cataract quarries were worked. The island of **Sâḥal** should be visited on account of the numerous inscriptions left there by princes, generals, and others who passed by on their way to Nubia. On February 6th, 1889, Mr. Wilbour was fortunate enough to discover on the south-eastern part of this island a most important stele consisting of a rounded block of granite, eight or nine feet high, which stands clear above the water, and in full view from the river looking towards Philæ. Upon it are inscribed 32 lines of hieroglyphics, which form a remarkable document, and contain some valuable information bearing upon a famous seven years' famine. The inscription is dated in the eighteenth year of a king whose name is read by Dr. Brugsch as Tcheser, who reigned early in the IIIrd dynasty; but internal evidence proves beyond a doubt that the narrative contained therein is a redaction of an old story, and that it is, in its present form, not older than the time of the Ptolemies. In the second line we are told :—"By misfortune the very greatest not had "come forth the Nile during a period lasting years seven. "Scarce [was] grain, lacking [was] vegetable food, [there was "a] dearth of everything [which men] ate." In this time of distress the king despatched a messenger to Matar, the governor of Elephantine, informing him of the terrible state of want and misery which the country was in, and asking him to give him information about the source of the Nile, and about the god or goddess who presided over it, and promising to worship this deity henceforth if he would make the harvests full as of yore. Matar informed the messenger concerning these things, and when the king had heard his words he at once ordered rich sacrifices to be made to Khnemu, the god of Elephantine, and decreed that tithes of every product of the land should be paid to his temple. This done the famine came to an end and the Nile rose again to its accustomed height. There can be no connection between this seven years' famine and that recorded in the Bible, for it must have happened some 2,000 years before Joseph could have been in Egypt; but this remarkable

* Bk. ii, chap. 28.

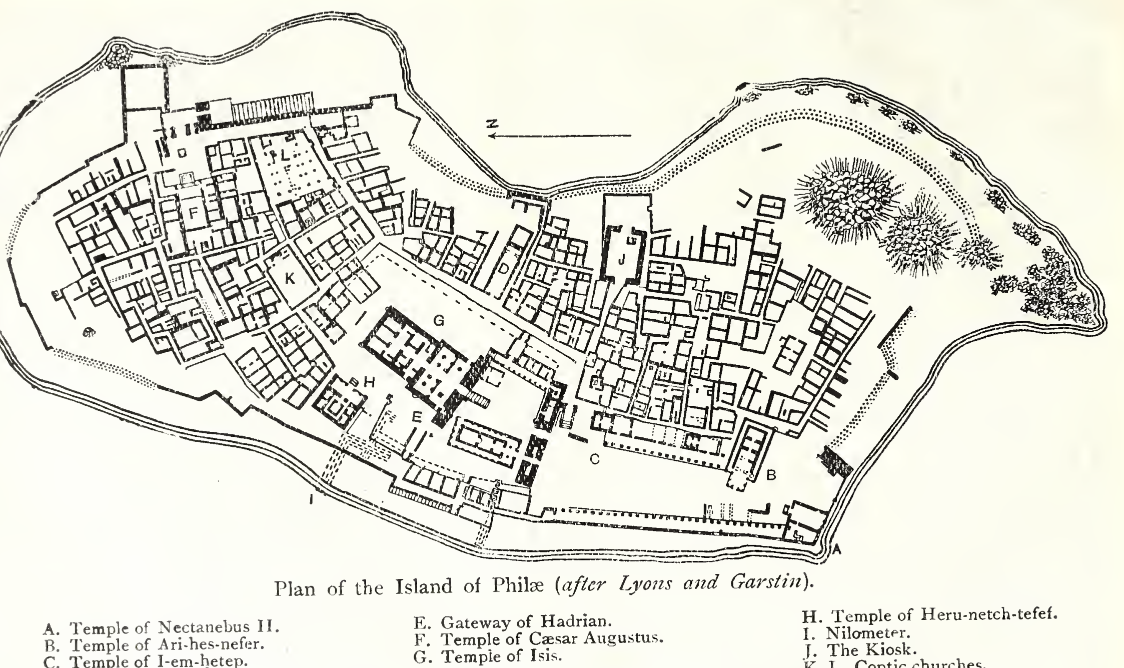
inscription proves that from time immemorial the people of Egypt have suffered from periodic famines. The village of **Mahâtah**, on the east bank of the river, is prettily situated, and worth a visit.

For an account of the **Aswân Dam**, see above, p. 83 *ff.*

Until the last few years the railway which joined the two ends of the First Cataract had its southern terminus at the little village of **Shallâl**, where dwelt 100 or 200 people, chiefly Nubians; besides these there was a small European population, consisting of Greeks and others, who were employed in working the railway and in connection with the steamers' traffic between Shallâl and Wâdî Ḥalfah. The village flourished during the winter season when tourists were numerous, and during the great expeditions to the Sûdân. When, however, the Aswân Dam was finished, and the process of holding up the water began, Shallâl was drowned, and its site lies several feet below the surface of the vast lake which begins at the dam and ends beyond Korosko. The new station is, however, called Shallâl, which is the terminus of the railway.

The Island of Philæ.

Philæ is the name given by the Greeks and Romans to the two islands which are situated at the head of the First Cataract, about six miles south of Aswân; the larger island is called **Bîgah**, the Senemet of the Egyptian texts, and the name Philæ now generally refers to the smaller island, on which stands the group of ancient buildings of the Ptolemaïc and Roman periods. The name Philæ is derived from the Egyptian words P-å-lek, *i.e.*, "the Island of Lek"; from these words the Copts formed the name Pilakh, and the Arabs the name Bilâḳ. A well-known name for Philæ in the inscriptions is "the city of Isis," and one text speaks of it as the "interior of heaven"; that it was held to be a most holy site is evident from its titles Åset ābt and P-å-āb, *i.e.*, "Holy House" and "Holy Island" respectively. Of the history of the Island of Philæ during the Early and Middle Empires nothing is known; only it is certain that the Egyptians made use of it for military purposes in very early times. Whether they built forts upon it cannot be said, but the site was an excellent one for a garrison. Judging by analogy, shrines to local gods or temples must have stood upon



Plan of the Island of Philæ (*after Lyons and Garstin*).

A. Temple of Nectanebus II.
B. Temple of Ari-hes-nefer.
C. Temple of I-em-ḥetep.
D. Temple of Hathor.
E. Gateway of Hadrian.
F. Temple of Cæsar Augustus.
G. Temple of Isis.
H. Temple of Heru-netch-tefef.
I. Nilometer.
J. The Kiosk.
K L. Coptic churches.

one or both of the islands, for it is impossible to imagine that such a well-protected and picturesque spot for a temple or temples should have remained unoccupied. The early travellers in Egypt declare that slabs of granite and sandstone inscribed with the names of Amenophis II, Amenophis III, and Thothmes III, were visible on this island, as well as on that of Bîgah; but it is certain that nothing of the kind remains there now. The island is 1,418 feet long, *i.e.*, from north to south, and 464 feet wide, *i.e.*, from east to west, and is formed by a mass of crystalline rock, mainly hornblendic granite, on which Nile mud has been deposited. The main portion of the Temple of Isis is founded on the solid rock of the island, while the other buildings have foundations usually from 4 to 6 metres in depth, which rest on Nile mud; a portion of one of the buildings rests upon an artificial quay made of stone. The oldest portion of a building on the island are the remains of a small edifice which was set up at the southern end of it by Nectanebus II, the last native king of Egypt (358–340 B.C.). Of the other buildings, all the temples date from the Ptolemaïc period, and were the works of the Ptolemies and of one or two Nubian kings. Under the Roman Emperors a few of the existing buildings were enlarged, and a few architectural works of an ornamental character were added.

An ancient tradition made Philæ to be one of the burial places of Osiris, and an oath sworn by Osiris of Philæ was inviolable; the very earth of the island was considered to be holy, and only those who were priests, or were employed in the temples, were allowed to live there.

In early times the gods of the cataract were the gods of Philæ, *i.e.*, Khnemu and Satet, Khnemu-Rā and Hathor, Ānuqet, Ptaḥ, and Sekhmet, etc.; but in Greek and Roman times the deities chiefly worshipped in the island were Isis and Osiris, and the gods who were in their train, *i.e.*, Horus, Nephthys, etc. In connection with the worship of Isis and Osiris a number of ceremonies were performed, in which the death and mutilation of the body of Osiris, the gathering together of his scattered limbs, the reconstruction of the body by Isis, and its revivification by means of the words of power which Thoth had taught her formed very prominent scenes. Together with such ceremonies, a number of others connected with the worship of Osiris as the god of life and fecundity were also celebrated at Philæ, something after the manner of a miracle play, and there

is no doubt that great crowds would be drawn to the spot by such performances. Primarily, such ceremonies would most appeal to the Egyptians, who, seeing that the great, and probably original, shrine of Osiris at Abydos had fallen into decay, endeavoured to make Philæ its successor; but in Ptolemaïc times and later the Greeks and Romans flocked to the spot, the former to worship Osiris, and the latter to worship Isis. In the early centuries of the Christian era human sacrifices were offered to the Sun at Philæ.

The form of Osiris which the Greeks revered was **Sarapis,** *i.e.*, Åsår-Ḥāpi, "Osiris-Apis," to whom they ascribed all the attributes of the Greek god Hades. The Egyptian priests, of course, approved of the introduction of the god into the national collection of gods as long as it could be effected by identifying him with an ancient god of the country, and thus the Egyptian and Greek priests found a deity who could satisfy the religious aspirations of both peoples. The introduction of the god was made in the reign of Ptolemy Soter; but in a few generations the attributes of Hades were forgotten, and the worship of Sarapis became identical with that of Osiris. This having been brought about, and Philæ being recognized as one of the most holy shrines of the god, the palmy days of the island began, and so long as the Ptolemies could keep the tribes quiet on the south and west of Egypt all went well, and the shrine became very rich.

In 22 B.C., Candace seized Philæ, Aswân, and Elephantine, but her forces were attacked by the Romans, who defeated her and scattered her army. She was probably the Meroïtic queen who built the temple at 'Amârah, a little above Kôshah. In A.D. 250 the Blemmyes sacked Philæ and raided Upper Egypt so far north as Thebes. In the reign of Diocletian (A.D. 284–305) the Romans made arrangements with the Nubians, and the Blemmyes on the east and the Nobadæ on the west were kept quiet by the payment of an annual subsidy. The Nubians stipulated that the statue of Isis should be carried through their country once a year, so that the women might be able to make their prayers and petitions to her. Though Christianity was spreading in Nubia, the cult of Isis and Osiris of Philæ remained uninterrupted. In A.D. 380 Theodosius the Great issued the edict for establishing the worship of the Trinity, and a year later he prohibited sacrifices, and ordered some of the temples to be turned into Christian churches, and the rest to be shut; but in spite of everything, sacrifices

were offered at Philæ, and the worship of Osiris was carried on there, just as was the worship of the gods of Greece and Rome in Italy and elsewhere, until quite the reign of Justinian, who ascended the throne A.D. 527. Nubia was converted to Christianity about A.D. 540, and a few years later the Emperor Justinian sent the Pers-Armenian Narses to Philæ with authority to destroy the worship of Osiris and Isis. When Narses arrived he removed the statues of the gods from the great temple of Isis and sent them to Constantinople; their subsequent fate is unknown. He then closed the temple, and threw all the priests into prison, and, of course, confiscated all the revenues on behalf of his master. The custom of sacrificing human beings to the Sun-god was abolished, and Christians entered Nubia from the Thebaïd in large numbers. A local Nubian king called Silko was sufficiently strong to seize the whole country from the First to the Fourth Cataract, and he founded the Christian Nubian kingdom, making Donḳola his capital. In Christian times the Copts built at Philæ one church in honour of Saint Michael and another in honour of Saint Athanasius, and recent excavations have shown that many small churches were built there. From a Coptic inscription discovered by M. Barsanti in 1902, and now in the museum at Cairo, we know that a church dedicated to the Blessed Virgin Mary existed at Philæ in the first half of the VIIIth century, and it tells us that in the 439th year of the Era of the Martyrs (A.D. 723), a certain Joseph, son of Dioscurus, placed an altar in the sanctuary. Abû Ṣalîḥ says that there are "many idols and temples" on the island, and that on the west bank of the river there were several churches overlooking the cataract, but adds that they were in ruins in his day.

When Strabo visited Philæ he says that he came from Syene (Aswân) in a wagon, through a very flat country. "Along the "whole road on each side we could see, in many places, very "high rocks, round, very smooth, and nearly spherical, of "hard black stone, of which mortars are made; each rested "upon a greater stone, and upon this another; they were like "unhewn stones, with heads of Mercury upon them. Some-"times these stones consisted of one mass. The largest was "not less than 12 feet in diameter, and some of them exceeded "this size by one-half. We crossed over to the island in a "pacton, which is a small boat made of rods, whence it "resembles woven-work. Standing there in the water (at the

" bottom of the boat), or sitting upon some little planks, we " easily crossed over, with some alarm, indeed, but without " good cause for it, as there is no danger if the boat is not " overturned." Of Philæ itself he says: "A little above the " cataract is Philæ, a common settlement, like Elephantina, of " Ethiopians and Egyptians, and equal in size, containing " Egyptian temples, where a bird, which they call hierax (the " hawk), is worshipped; but it did not appear to me to resemble " in the least the hawks of our country nor of Egypt, for it " was larger, and very different in the marks of its plumage. " They said that the bird was Ethiopian, and is brought " from Ethiopia when its predecessor dies, or before its " death. The one shown to us when we were there was " sick and nearly dead." (Strabo, xvii, 1–49, Falconer's translation.)

In 1893 the project for a dam and reservoir at Aswân was submitted to the Government of Egypt, and in order to obtain an accurate idea of the stability of the temples, etc., Sir W. Garstin, K.C.M.G., caused an exhaustive examination of the island to be made by Captain H. G. Lyons, R.E., whose labours prove that, contrary to the general practice of the ancient Egyptian architects, the foundations of all the main buildings go down to the bed-rock, and that consequently there is nearly as great a depth of masonry below the ground as there is above it. In the course of his excavations Captain Lyons discovered a trilingual inscription in hieroglyphics, Greek, and Latin, recording the suppression of a revolt mentioned in Strabo (xvii, i, § 53) by Cornelius Gallus, the first prefect of the country in the reign of Augustus Cæsar. The principal buildings of interest on the island are :—

1. The **Temple of Nectanebus II**, the last native king of Egypt, which was dedicated to Isis, the lady of Philæ; it contained 14 columns with double capitals, but few of them now remain. The columns were joined by stone walls, on which were reliefs, in which Nectanebus is depicted making offerings to the gods of Philæ. The southern part of the temple either fell into the river, or was removed when the quay wall was built across the south end of the island, cutting off the remainder of the court, and leaving only the front portion to mark the place of the original temple. The present building rests on a course of blocks which formed part of an earlier wall, and the cartouches prove that it was repaired by Ptolemy II Philadelphus.

2. The **Temple of Åri-ḥes-nefer**, [hieroglyphs].—Åri-ḥes-nefer was the son of Rā and Bast, and this temple was dedicated to him by Ptolemy IV; it was restored or repaired by Ptolemy V, the Nubian king Ergamenes, and the Emperor Tiberius, all of whom are represented in the reliefs on the walls. The present building stands upon the site of an older temple, and part of it was turned into a church by the Copts; a number of the stone blocks from its walls were used in the building of some Coptic houses which stood near.

3. The **Temple of I-em-ḥetep**, which was finished in the reign of Ptolemy V, Epiphanes. In later times, when the east colonnade was built against it, a forecourt was added, with a narrow chamber on the east side of it; and in still later times the Copts lived in some portions of it.

4. The **Temple of Hathor**, which was dedicated to this goddess by Ptolemy VII, Philometor and Ptolemy IX, Euergetes II. The forecourt was added in Roman times, and it contained columns with Hathor-headed capitals. The Copts destroyed the forecourt and built a church of the stones of which it was made. On the south side are the ruins of houses which were built before the temple was destroyed. Over the door of the one remaining room of the temple is a dedicatory inscription of Ptolemy IX in Greek.

5. The **Gateway of Hadrian.** This gateway stands on a portion of the enclosing wall of the Temple of Isis, on the western side, and was connected with the temple by two parallel walls, which were added at a later time. On the lintels are reliefs in which the Emperor Hadrian is depicted standing before a number of the gods of Philæ, and inside the gateway is a scene representing Marcus Aurelius, who must have repaired the gateway, making offerings to Isis and Osiris.

6. The **Temple of Cæsar Augustus**, which was built about A.D. 12, and is thought to have been destroyed by an earthquake in Coptic times. In the centre of the paved court in front of it were found in the north-west and south-west corners the two halves of a stele which was inscribed in hieroglyphics and in Greek and Latin, with the record of a revolt against the Romans, which was suppressed by Cornelius Gallus about 22 B.C. The temple was built of sandstone, with granite columns and pedestals, and diorite capitals, and was dedicated to the Emperor by the people of Philæ

and of that part of Nubia which was under the rule of the Romans.

7. The **Temple of Isis.** The buildings of this edifice consist of:—(1) A pylon, decorated with the figures of Nectanebus II, Ptolemy VII, Ptolemy IX, and Ptolemy XII, Neos Dionysos; (2) a court, containing the Mammisi and a colonnade, and decorated with the figures of Ptolemy IX, Ptolemy XIII, and of the Emperors Augustus and Tiberius; (3) a second pylon, ornamented with reliefs by Ptolemy IX and Ptolemy XIII (at the foot of the right tower a portion of granite bed-rock projects, and the inscription upon it records the dedication of certain lands to the temple by Ptolemy VII); (4) a temple, which consists of the usual court, hypostyle hall, and shrine. In the various parts of this temple are the names of Ptolemy II, Ptolemy III, Ptolemy IX, and the Emperor Antoninus. Of special interest is the **Osiris Chamber,** wherein are reliefs referring to ceremonies which were connected with the death and resurrection of Osiris. The texts on the outside of this group of buildings mention the names of the Emperors Tiberius and Augustus.

8. The **Temple of Ḥeru-Netch-tef-f,** which consisted of a court, having four columns on the eastern face, and a large chamber in which stood the shrine, with a narrow passage running round it. It was built on a part of the old surrounding wall of the Temple of Isis, and the greater number of its stones were removed by the Copts, who built a church with them.

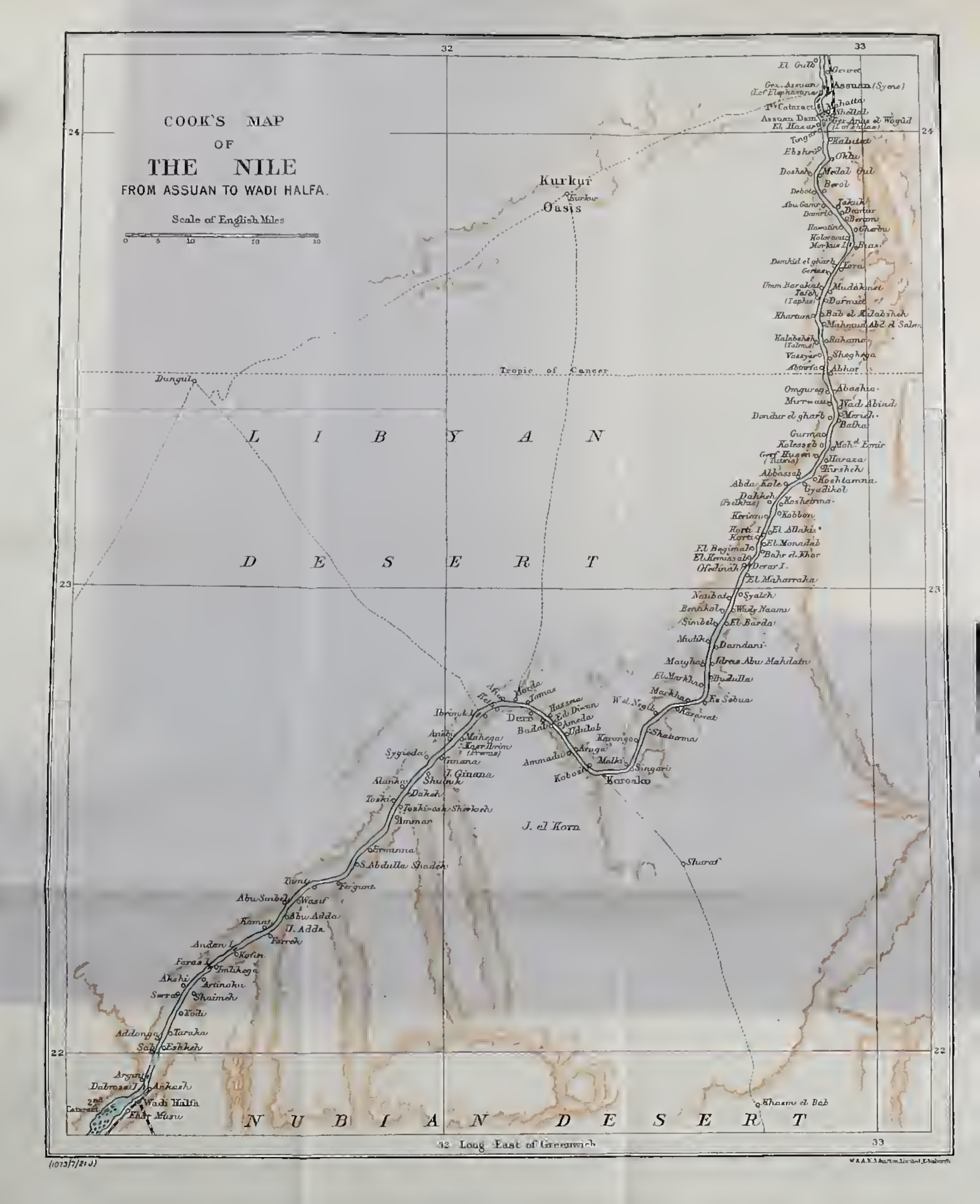
9. The **Nilometer.**—The doorway leading to the Nilometer is in the old surrounding wall of the temple, and the hinge and the jamb can still be seen. Three scales are cut in the walls, two on the north wall, and one on the south; the oldest is probably the vertical line chiselled on the face of the north wall, and showing whole cubits only, which are marked by horizontal lines. The average length of the cubit in each portion of the scale except the second is about ·520 metre. In the second scale on the north wall the cubit is divided into 7 palms, and each palm into 4 digits; two of the cubits are marked by demotic numerals. The third scale, which is on the south wall, is in a perfect state of preservation; the mean length of the 17 cubits marked is ·535 metre. Over the 16th cubit is cut the sign ☥, *ānkh*, *i.e.*, "life." This sign probably indicates that when the waters of the inundation rose

to the height marked by it, there would be abundance and prosperity in the land. The river level of the tops of scales Nos. 1, 2, and 3 is 99·654, 99·890, and 99·990 metres respectively, and the river level of the present time is 99·200 metres; therefore Captain Lyons, who made these measurements, concludes that there is very little difference between the flood level of to-day and that of about 2,000 years ago.

10. The "**Kiosk,**" which is one of the most graceful objects on the island, and that by which Philæ is often best remembered; the building appears to be unfinished. Its date is, perhaps, indicated by the reliefs in which the Emperor Trajan is depicted making offerings to Isis and Horus, and standing in the presence of Isis and Osiris.

Aswân (Shallâl) to Wâdî Ḥalfah (Second Cataract).

The country which is entered on leaving Philæ is now known as **Lower Nubia**, and it is supposed to extend from the head of the First Cataract to the foot of the Fourth Cataract, *i.e.*, to Marawî in the Province of Donḳola. Some suppose the name Nubia to be derived from *nub*, the Egyptian word for gold, because in ancient days much gold was brought into Egypt from that land. In the hieroglyphics Nubia and Ethiopia are generally called [hieroglyphs], Kesh (the Cush of the Bible), and [hieroglyphs], Ta-Sti; from the old name "Kenset" the Arabic Al-Kenûs is derived. The Egyptian King Seneferu, about 3800 B.C., raided the Sûdân and brought back 7,000 slaves, and it is known that under the VIth dynasty the Egyptians sent to this country for certain kinds of wood, and other commodities. All the chief tribes that lived round about Korosko hastened to help the Egyptian officer Unȧ in the mission which he undertook for King Pepi I. It seems pretty certain too, if we may trust Unȧ's words, that the whole country was made to acknowledge the sovereignty of the Egyptian king. Ḥer-khuf, an Egyptian officer and native of Elephantine, made several journeys to the Southern Sûdân, and brought back gold and slaves for King Pepi II. From the VIIth to the XIth dynasty nothing is known of the relations which existed between the two countries, but in the time of Usertsen I,


COOK'S MAP
OF
THE NILE
FROM ASSUAN TO WADI HALFA.
Scale of English Miles
Kurkur Oasis
Tropic of Cancer
L I B Y A N
D E S E R T
N U B I A N D E S E R T
Long. East of Greenwich
Assuan (Syene)
1st Cataract
Assuan Dam
Kalabsheh
Derr
Korosko
J. el Korn
Ibrim
Abu Simbel
Faras I.
Wadi Halfa
2nd Cataract
Dungul
Es Sebua
Dakkeh
Maharraka
Dendur el gharb
Shurat
Khasm el Bab
(1073/7/21 J)

the second king of the XIIth dynasty, an expedition was undertaken by the Egyptians for the purpose of fixing the boundaries of the two countries, and we know from a stele set up at Wâdî Ḥalfah by this king that his rule extended as far south as this place. As a matter of fact it extended as far as the head of the Third Cataract, and one of the Egyptian Viceroys of Lower Nubia at that period was Heptchefa, who died and was buried there. Usertsen III found it necessary to build fortresses at Samnah and Kummah, south of the Second Cataract, and to make stringent laws forbidding the passage north of any negro ship or company of men without permission. To the period of the XIth and XIIth dynasties must probably be assigned the construction of the fortresses of Buhen (Wâdî Ḥalfah), Mayanarti, Dorgaynarti, Matûka, (Mirḳîs), Dabnarti, a fort opposite Sarras, Urunârti (Gazîrat al-Malik), and the forts of Samnah. All these are in the Second Cataract.

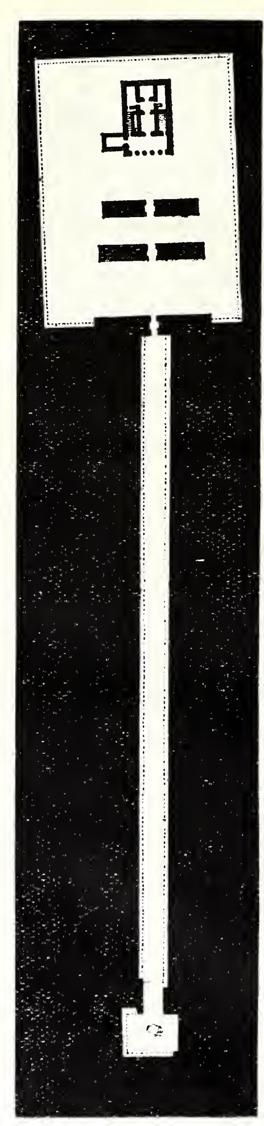
The early Hyksos kings in some way managed to overthrow the Egyptian rule in Lower Nubia, and to establish themselves near the head of the Third Cataract. When the XVIIIth dynasty had obtained full power in Egypt, some of its greatest kings, such as Thothmes III and Åmenḥetep III, marched beyond Samnah and built temples; under the rulers of this dynasty the country became to all intents and purposes a part of Egypt. Subsequently the Nubians appear to have acquired considerable power, and as Egypt became involved in conflicts with more northern countries, this power increased until Nubia, about 740 B.C., was able to declare itself independent under Piānkhi. For nearly 2,000 years the Nubians had had the benefit of Egyptian civilization, and all that it could teach them, and they were soon able to organize hostile expeditions into Egypt with success. A second Nubian kingdom rose under Tirhâḳâh, who conquered all Egypt and occupied Memphis. The capital of both these Nubian kingdoms was Napata, opposite Gabal Barkal. About two centuries before the birth of Christ the centre of the Nubian kingdom was transferred to the Island of Meroë, and this upper kingdom of Nubia lasted until the rise of the Græco-Ethiopian kingdom, which had its capital at Axum.

The Archæological Survey of Nubia.—In September, 1906, the survey of that portion of Nubia which is submerged when the Aswân Reservoir is raised to the level of

113 metres above sea level, was begun under the direction of Captain H. G. Lyons. The archæological work was undertaken by Messrs. Reisner, Firth, and Blackman, and the anthropological section by Messrs. Elliot Smith and Wood Jones. As the result of the examination of eleven cemeteries it was concluded that "here on the borders of Egypt and Nubia the "course of development was much the same both in character "and in time as in Egypt in passing from the primitive pre-"dynastic period through the effective copper period of the first "four dynasties to the New Empire. There is, however, a type "of pottery and of beads which appears to be characteristic of "Nubia." In 1907–8 cemeteries, etc., at Khor Ambukol, Dembid, Dabod, Madi al-Ḳadi, Kolodul, Wâdî Ḳamar, Khor Menab, Khor Bir-Amran, Seali, Demhid, Ḳartassi, Metadul, etc., were excavated. And the investigators decided that between the Aswân Dam and Kalâbshah there was a series of cemeteries presenting a homogeneous material covering the whole period from the earliest predynastic times to the present day. From the earliest predynastic times down to the early dynastic, the whole district was characteristically Egyptian in culture, and the race which occupied the district in that period was pure Egyptian. During the early dynastic period and the Old Empire, the population seems to have been isolated from Egyptian influence, and became mixed with Negroid elements. Under the New Empire the country was again completely under the influence of Egyptian culture, and except for slight interruptions, remained under that influence until the Christian Period. Cemeteries were next cleared at Gennari, Aqabatên, Nogi-Koleh, Khor Bazil, Haggi Musa-kole, Dendûr, Mettardul, Wâdî Abyad, Abû Rêgab, Dughesh, Kho Nugdy, Farragullah, Sherfadittogog, Gedekol, Shellubbatha, Medîḳ, etc. The results showed that dated graves of the XVIth and XVIIth dynasties appear for the first time at Gennari, a fact which is explained by the actual movements of population during the Hyksos period as a result of political conditions in Egypt. Whilst the Hyksos were masters of Egypt many Egyptians fled thither for refuge, and they married Nubian women and died there. The military occupation of Nubia by the Egyptians under the XVIIIth dynasty may possibly account for the presence of many Egyptians in Nubian graves. It was further concluded that "the present population of Nubia is "Egyptian, modified in physical type and moral qualities by "forty centuries of dilution with Negro blood." In 1909 the

Survey examined more cemeteries at Kushtamna, Sabagura, Aman Daüd, Daḳḳah, etc., and in 1910 further work was done. Detailed accounts of the objects found in the cemeteries during the course of these exhaustive labours are given with drawings, photographs, etc., in the *Bulletins* of the Archæological Survey of Nubia (published by the Egyptian Government), of which many have already appeared. The anthropological material has not been fully worked out yet, but the examination of the bones is going on, and all must hope that when the craniological experts have agreed among themselves what conclusions may be rightly drawn from the human remains found in Nubia, they will publish them without delay in an easily accessible form.

The Restoration of the Temples of Nubia.—Very shortly after the raising of the Aswân Dam was contemplated, Professor Maspero called the attention of the Egyptian Government to the effect which the higher level of the water in the great Reservoir might have on the temples which were within its reach. In 1904 he visited all the temples in Nubia and found that the effect of the dam was felt as far as Dêrr; when the dam was raised he felt certain that even Abû Simbel would be affected. He examined all the temple sites between Abû Simbel and Aswân, and drew up a scheme for the repair, or restoration, of each temple, and made an estimate of the probable cost. He came to the conclusion that the temples were in urgent need of repairs, if they were to be prevented from falling down, and estimated that the works absolutely necessary on the temples of Abû Simbel, Dêrr, 'Amâdah, Wâdî Sabû'ah, Miḥarraḳah, Daḳḳah, Garf Husên, Dendûr, Kalâbshah and Bêt al-Walî, Wâdî Tâfah, Ḳartassi and Dâbûd would cost £E.19,630. Other works at Ḳurtah (Korti), Ḳubbân, Kushtamnah, and Ḳîrshah would cost a further sum of £E.1,050, and if the temples between Abû Simbel and Wâdî Ḥalfah were included, the total cost of the whole work would be £E.30,000. The Egyptian Government accepted Professor Maspero's report, and M. Alexander Barsanti was appointed to carry into effect its recommendations. The work was begun in 1907 and was carried on steadily year by year until it was completed. Many important additions to our knowledge of the Nubian temples were made by the labours of M. Barsanti, especially in the case of the great temple at Abû Simbel. Full details of the works executed on each temple were published by Professor Maspero in his



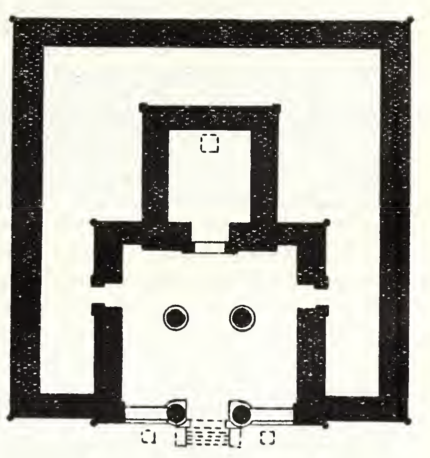
Plan of the Temple of Dâbûd.

Les Temples Immergés de la Nubie, Cairo, 1909 and following years.

After leaving Shallâl, the first place of interest passed is **Dâbûd,** on the west bank of the river, 599½ miles from Cairo. At this place, called Ta-ḥet in the inscriptions, are the ruins of a temple founded by Atcha-khar-Åmen, a king of Nubia who may have reigned about the middle of the third century B.C. The names of Ptolemy VII, Philometor, and Ptolemy IX, Euergetes II, are found engraved upon parts of the building. Dâbûd probably stands on the site of the ancient **Parembole,** a fort or castle on the borders of Egypt and Ethiopia, and attached alternately to each kingdom. During the reign of Diocletian it was ceded to the Nubæ by the Romans, and it was frequently attacked by the Blemmyes from the east bank of the river. On the island of Dimri are masses of ruins which appear to belong to the period of the conquest of Egypt by the Turks. At **Ḳartassi,** on the west bank of the river, 615 miles from Cairo, are the ruins of a very small temple and large quarries, from which the stone for building the temples at Philæ was obtained; on the quarry walls are numerous Greek inscriptions of the first three centuries of our era, and the greater number of them are dedicated to Isis. Beyond the quarries are the ruins of a Roman fort. Seven miles further south, on the west bank of the river, is **Wâdî Tâfah,** the ancient Taphis, where there are also some ruins; they are, however, of little interest. Contra-

Taphis lay on the east bank. A little further on the river is strewn with huge rocks, blackened and shining, which the boatmen called the "Gate of Kalâbshah" (*Bâb al-Kalâbshah*).

Kalâbshah, كلابشة, on the west bank of the river, 629 miles from Cairo, stands on the site of the classical Talmis, called in hieroglyphics Thermeset, and Ka-ḥefennu; it was for a long time the capital of the country of the Blemmyes, *i.e.*, the tribes which lived in the Eastern Desert; they are called "Baja" or "Baga" by Arab writers, and among their descendants are the Bishârîn, numbers of whom are seen near Aswân. It stands immediately on the Tropic of Cancer. The god of this town was called **Merul** or Melul, the **Mandulis** or Malulis of the Greeks. At Kalâbshah there are the ruins of two temples of considerable interest. The larger of these, which is one of the largest temples in Nubia, appears to have been built upon the site of an ancient Egyptian temple founded by Thothmes III, 1550 B.C., and Amenophis II, 1500 B.C., for on the pronaos this latter monarch is represented offering to the god Menu and the Ethiopian god Merul or Melul. It seems to have been restored in Ptolemaïc times, and to have been considerably added to by several of the Roman Emperors—Augustus, Caligula, Trajan, etc. From the appearance of the ruins it would seem that the building was wrecked either immediately before or soon after it was completed; some of the chambers were plastered over and used for chapels by the early Christians. A large number of Greek and Latin inscriptions have been found engraved on the walls of this temple, and from one of them we learn that the Blemmyes were defeated by **Silko**, king of the Nubæ and



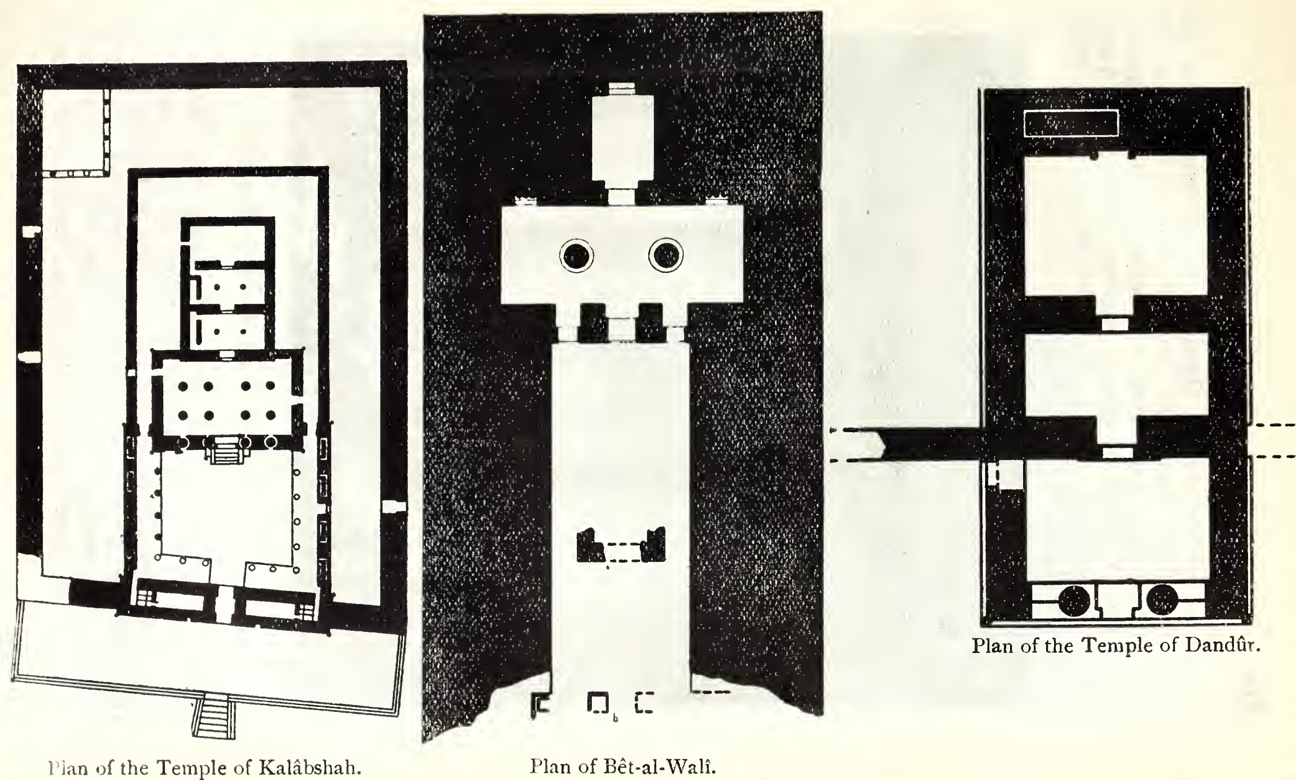
Plan of the Temple of Tâfah.

Ethiopians, in the middle of the sixth century of our era. The following is a translation of it:—

"I Silko am Chieftain of the Nobadae and of all the Ethiopians. "I came to Talmis and to Taphis. Once, twice, I fought with "the Blemmyes, and God gave me the victory over the three. "I conquered them once and for all, and made myself master of "their cities, and for the first time I established myself therein, "together with my troops. I conquered them, and they made "supplication to me, and I made peace with them, and they swore "oaths to me by the images of their gods, and I trusted in their "oaths that they were honourable men. Then I returned into the "Upper part of my country. When I had become Chieftain I did "not follow behind other kings, but was in the very front of them. "And as for those who strive with me for the mastery, I do not "permit them to live in their own country, unless they beg for-"giveness from me, for in the Lower Country I am a lion, and in "the Upper Country I am an oryx.

"I fought with the Blemmyes from Primis to Talmis once. "And of the Nobadae to the south I ravaged their lands, since they "contended with me. As for the chiefs of the other nations who "strive with me for the mastery, I do not permit them to sit in the "shade, but outside in the sun, and they cannot even take a drink "of water in their own houses. As for those who offer resistance "to me, I carry off their wives and children."

At **Bêt-al-Walî**, *i.e.*, the "house of the Saint," a short distance from the larger temple, is the interesting rock-hewn temple which was made to commemorate the victories of Rameses II over the Syrians, Libyans, and Ethiopians. On the walls of the court leading into the small hall are some beautifully executed sculptures, representing the Ethiopians, after their defeat, bringing before the king large quantities of articles of value, together with gifts of wild and tame animals. Many of the objects depicted must have come from a considerable distance, and it is evident that in those early times Talmis was the great central market to which the products and wares of the Sûdân were brought for sale and barter. The sculptures are executed with great freedom and spirit, and when the colours upon them were fresh they must have formed one of the most striking sights in Nubia. Some years ago casts of these interesting sculptures were taken by Mr. Bonomi, at the expense of Mr. Hay, and notes on the colours were made; these two casts, painted according to Mr. Bonomi's notes, are now set up on the walls in the Fourth Egyptian Room in the British Museum (Northern Gallery), and are the only evidences extant of the former beauty of this little rock-hewn temple, for nearly every trace of colour has vanished from the walls. The scenes on the battlefield are of great interest.



Plan of the Temple of Kalâbshah.

Plan of Bêt-al-Walî.

Plan of the Temple of Dandûr.

Between Kalâbshah and **Dandûr**, on the west bank of the river, 642 miles from Cairo, there is little of interest to be seen; at Dandûr are the remains of a temple built by Augustus, where this Emperor is shown making offerings to Åmen, Osiris, Isis, and Sati. For a plan of the ruin *see* previous page.

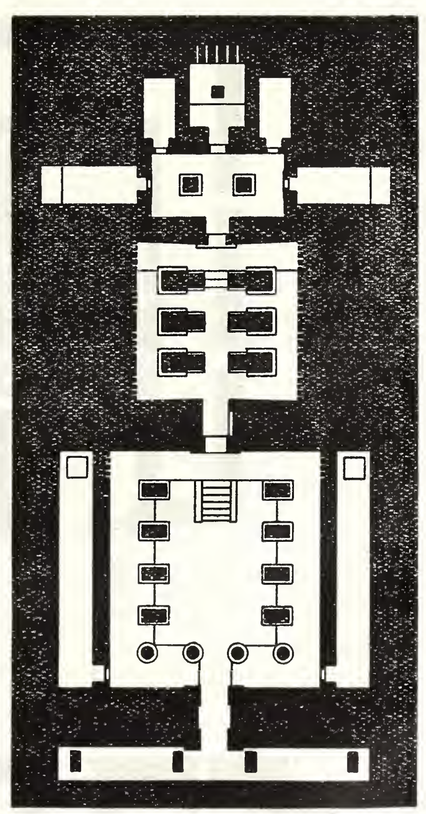


Temple of Dandûr, as it appeared in the days of Gau.

On the walls are several inscriptions in Greek and Coptic, and close by is the quarry whence the stone for the temple was hewn. Between Dandûr and Garf Ḥusên is **Ḳirshah.** At **Garf Ḥusên,** on the west bank of the river, 651 miles from Cairo, are the remains of a rock-hewn temple built by Rameses II in honour of Ptaḥ, Sekhmet, Ta-Tenen, Hathor, and Āneq;

the work is poor and of little interest. This village marks the site of the ancient Tutzis.

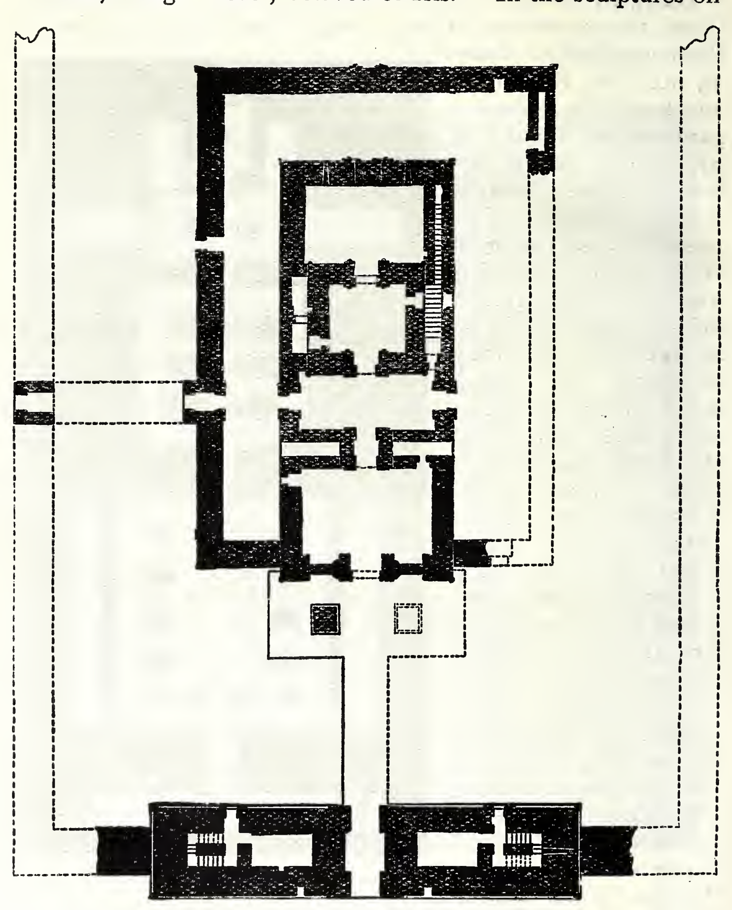
Dakkah, on the west bank of the river, 662½ miles from Cairo, marks the site of the classical Pselcis, the P-selket of the hieroglyphics. About 23 B.C. the Ethiopians attacked the Roman garrisons at Philæ and Syene and, having defeated them, overran Upper Egypt. Petronius, the successor of Ælius Gallus, marching with less than 10,000 infantry and 800 horse against the rebel army of 30,000 men, compelled them to retreat to Pselcis, which he afterwards besieged and took. "Part of the "insurgents were driven "into the city, others "fled into the uninhabited country; and "such as ventured upon "the passage of the river "escaped to a neighbouring island, where "there were not many "crocodiles on account "of the current. Among "the fugitives were the "generals of Candace,* "queen of the Ethiopians in our time, a "masculine woman, and who had lost an eye. Petronius, "pursuing them in rafts and ships, took them all and despatched "them immediately to Alexandria." (Strabo, xvii, 1, 54.) From Pselcis Petronius advanced to Premnis (Ibrîm), and afterwards to Napata, the royal seat of Candace, which he razed to the



Plan of the Temple of Kirshah.

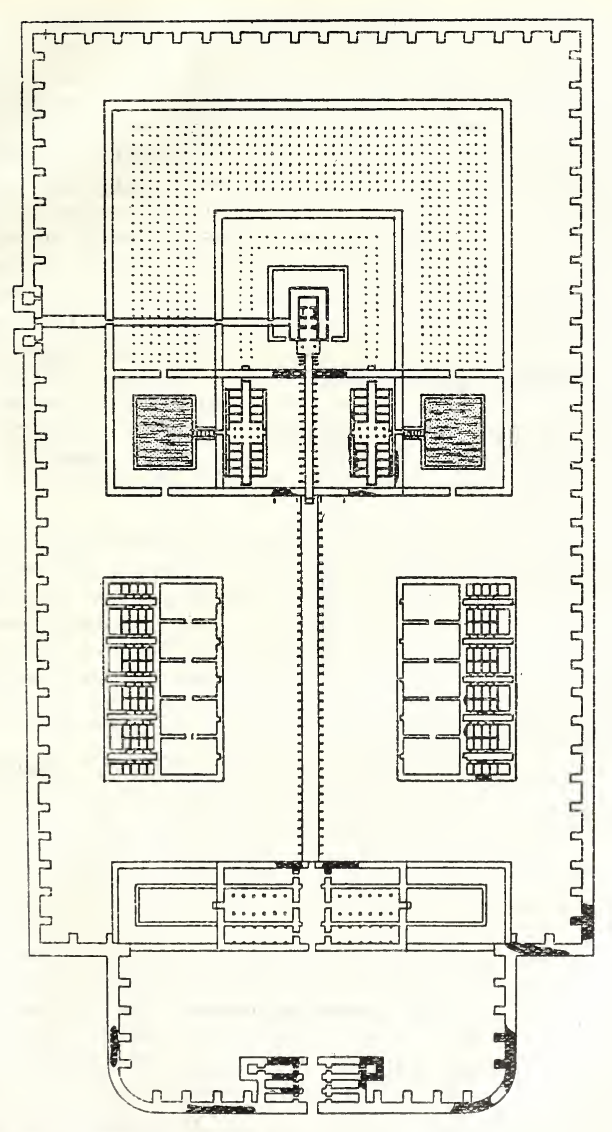
* Candace was a title borne by all the queens of Meroë.

ground. As long as the Romans held Ethiopia, Pselcis was a garrison town. The temple at Daḳḳah was built by "Årq-"Åmen, living for ever, beloved of Isis." In the sculptures on



Plan of the Temple of Daḳḳah. (From Lepsius.)

the ruins which remain Årq-Åmen is shown standing between Menthu-Rā, lord of Thebes, and Åtmu, the god of Heliopolis,



Plan of the Temple of Daḳḳah. (From Gau.)

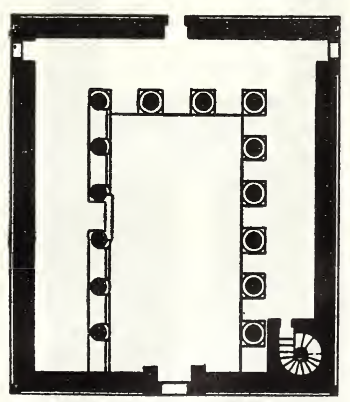
and sacrificing to Thoth, who promises to give him a long and prosperous life as king. Ȧrq-Ȧmen (Ergamenes) is called the "beautiful god, son of Khnemu and Osiris, born of Sati "and Isis, nursed by Āneq and Nephthys," etc. According to Diodorus, the priests of Meroë in Ethiopia were in the habit of sending, "whensoever they please, a messenger to the king, "commanding him to put himself to death; for that such is the "pleasure of the gods; . . . and so in former ages, the kings "without force and compulsion of arms, but merely bewitched "by a fond superstition, observed the custom; till Ergamenes "(Ȧrq-Ȧmen), a king of Ethiopia, who reigned in the time of "Ptolemy II, bred up in the Grecian discipline and philosophy, "was the first that was so bold as to reject and despise such "commands. For this prince . . . . . marched with a con-"siderable body of men to the sanctuary, where stood the "golden temple of the Ethiopians, and there cut the throats "of all the priests" (Book iii, chap. vi). Many of the Ptolemies and some Roman Emperors made additions to the temple at Daḳḳah.

In 1906, Prof. Garstang excavated the undisturbed cemetery of **Kushtamnah**, which lies about 5 miles to the north of Daḳḳah. About 200 graves were cleared out, and the objects discovered seem to show that a close analogy existed between the funeral customs of the Nubians and the predynastic and dynastic peoples of Egypt. They suggest that the primitive type of Egyptian culture may have survived in the remoter districts of Upper Egypt until the XIIth dynasty or later.

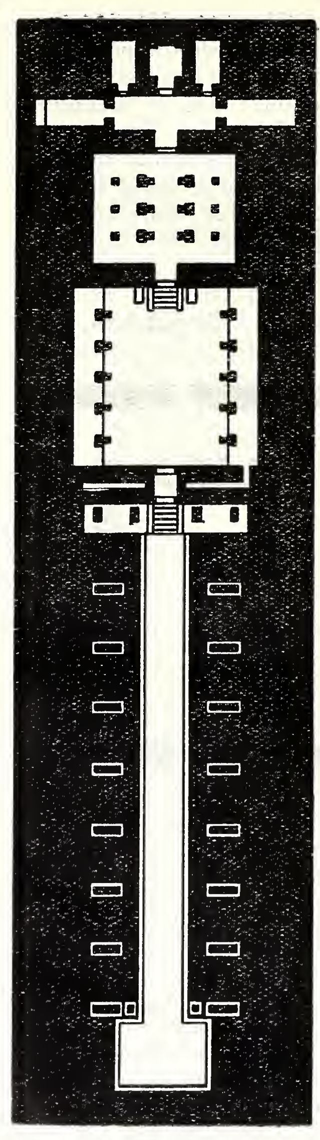
On the east bank of the river opposite Daḳḳah is **Ḳubbân,** called Baka in the hieroglyphics, a village which is said to mark the site of **Tachompso** or Metachompso, "the place of "crocodiles." As Pselcis increased, so Tachompso declined and became finally merely a suburb of that town; it was generally called Contra-Pselcis. The name Tachompso is derived from the old Egyptian name of the town, Ta-qemt-sa. Tachompso was the frontier town which marked the limit on the south of the district which lay between Egypt and Ethiopia, and derived its name, **Dodecaschoenus,** from the fact that it comprised 12 schoinoi; the schoinos is said by Herodotus (ii, 6) to be equal to 60 stades, but other writers reckon fewer stades to the schoinos. The stade equals one-eighth of a mile.

During the XIIth, XVIIIth, and XIXth dynasties this place was well fortified by the Egyptians, and on many blocks of

stone close by are found the names of Thothmes III, Ḥeru-em-ḥeb, and Rameses II. It appears to have been the point from which the wretched people condemned to labour in the gold mines in the desert of the land of Akita set out; and an interesting inscription on a stone found here relates that Rameses II, having heard that much gold existed in this land, which was inaccessible on account of the absolute want of water, bored a well in the mountain, 12 cubits deep, so that henceforth men could come and go by this land. His father Seti I had bored a well 120 cubits deep, but no water appeared in it. From Ḳubbân a road runs through the Wâdî 'Alâḳî to the gold mines there, which are now being worked. At **Ḳûrtah**, a few miles south of Daḳḳah, on the west bank of the river, are the remains of a temple which was built in Roman times upon a site where a temple had stood in the days of Thothmes III. Opposite **Miḥarraḳah,** about 675 miles from Cairo, on the west bank of the river, lie the ruins of **Hierasycaminus**, the later limit on the south of the Dodecaschoenus. About 20 miles from Daḳḳah, and 690 from Cairo, on the west bank of the river, is **Wâdî Sabû'ah,** or the "Valley of the Lions," where there are the remains of a temple partly built of sandstone, and partly excavated in the rock; the place is so called on account of the dromos of 16 sphinxes which led up to the temple. On the sculptures which still remain here may be seen Rameses II, the builder of the temple, "making an offering of incense to father Åmen, "the king of the gods," who says to him, "I give to thee all "might, and I give the world to thee, in peace." Elsewhere the king is making offerings to Tefnut, lady of heaven, Nebt-ḥetep, Horus, and Thoth, each of whom promises to bestow some blessing upon him. On another part is a boat containing a ram-headed god, and Harmachis seated in a shrine, accompanied by Horus, Thoth, Isis, and Maāt; the king kneels before him in adoration, and the god says that he will give him myriads of years and festivals; on each side is a figure



Plan of the Temple of Miḥarraḳah.



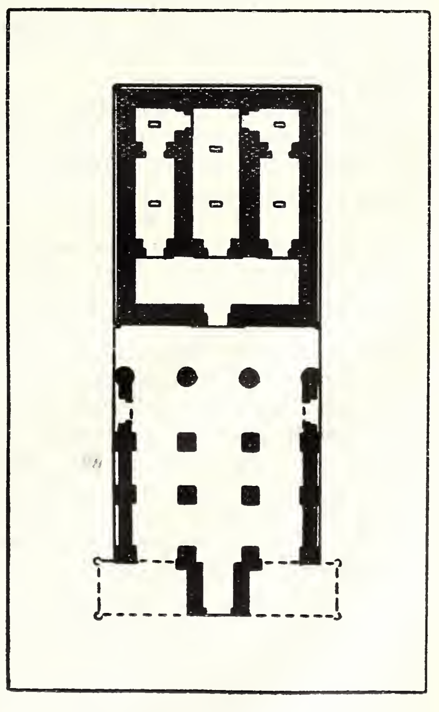
Plan of the Temple of Wâdi Sabûʻah.

of Rameses II making an offering. Beneath this scene is a figure of a Christian saint holding a key, and an inscription on each side tells us that it is meant to represent Peter the Apostle. This picture and the remains of plaster on the walls show that the chambers of the temple were used by the early Christians as chapels.

Kuruskuw (Korosko), on the east bank of the river, 703 miles from Cairo, was from the earliest times the point of departure for merchants and others going to and from the Sûdân, *viâ* Abû Ḥamad; from the western bank there was a caravan route across into North Africa. In ancient days the land which lay to the east of Korosko was called Uaua, and as early as the VIth dynasty the officer Unȧ visited it in order to obtain blocks of acacia wood for his king Pepi I. An inscription, found a few hundred yards to the east of the town, records that the country round about was conquered in the XIIth dynasty by Ȧmenemḥat I. A capital idea of the general character of Nubian scenery can be obtained by ascending the mountain, which is now, thanks to a good path, easily accessible. **On passing the village of Korosko the traveller enters the Egyptian Sûdân.** The **true boundary** of the Egyptian Sûdân on the north begins at Korosko, runs to the south-east as far as lat. 22° N., then to the east as far as long. 34° E., then to the north-east to

Kurbêlab and Malêkab, and then to the east to Bîr Shalatan on the west coast of the Red Sea. The **administrative boundary** of the Egyptian Sûdân on the north has been fixed by Gabal Saḥâbah and Faras Island, 12 miles N. of lat. 22° N., which is the **political boundary**, and 20 miles N. of Wâdî Ḥalfah.

In 1907 Mr. MacIver carried out excavations on a series of sites in the district which lies between Korosko and 'Amâdah, and is commonly known as **Ar-Riḳah**, or, as he writes the name, Areika. At Al-Gazîrah he discovered and excavated a "buried castle," which he assigns to the period of the XVIIIth dynasty. A little to the north of the castle are three small cemeteries. The cemetery nearest the castle is Romano-Nubian, and contained 100 graves. The cemetery to the north of this contained 60 graves, and judging by the objects which were found in them should belong to the Pre-dynastic Period. The third cemetery yielded objects of the XVIIIth dynasty. At Shablûl another cemetery was discovered and excavated and in it were found tombs of a kind "which has never been "observed before in "Egypt or Nubia." The evidence obtained from the shapes and designs of the pottery found suggests that it dates from some period in the first three centuries of our era.



Plan of the Temple of 'Amâdah.

At **'Amâdah,** on the west bank of the river, 711 miles from Cairo, is a small but interesting temple, which appears to have been founded in the XVIIIth dynasty by

Thothmes III and Àmenḥetep II, and was added to by Thothmes IV. Seti I restored some of the reliefs which had apparently been destroyed before his reign. The Copts used the temple as a church, and covered the walls with plaster to hide the "figures of the idols" on them. To this treatment they owe their present good state of preservation. This temple was repaired by Thothmes III and other kings of the XVIIIth dynasty.

At **Dêrr,** on the east bank of the river, 715 miles from Cairo, is a small, badly executed, rock-hewn temple of the time of Rameses II, where the usual scenes representing the defeat of the Ethiopians are depicted. The king is accompanied by a tame "lion which follows after his majesty." Close to the temple is the rock stele of the prince Àmen-em-ḥeb of the same period; the temple was dedicated to Àmen-Rā. The Egyptian name of the town was *Per-Rā pa ṭemài*, "the town "of the temple of the sun."

Thirteen miles beyond Dêrr, 728 miles from Cairo, also on the east bank of the river, stands **Ḳaṣr Ibrîm,** which marks the site of the ancient **Primis,** or Premnis, called in the Egyptian inscriptions [hieroglyphs], Màāmam. This town was captured during the reign of Augustus by Petronius on his victorious march upon Napata. In the first and third naos at Primis are representations of Neḥi, the governor of Nubia, with other officers, bringing gifts before Thothmes III, which shows that these hollows were hewn during the reign of this king; and in another, Rameses II is receiving adorations from Setau, prince of Ethiopia, and a number of his officers. At **Anîbah,** just opposite Ibrîm, is the **grave of Penni,** the governor of the district, who died during the reign of Rameses VI. About three miles off is the battle-field of Toski, on the east bank of the Nile, where Sir Francis Grenfell slew Wâd an-Nagûmî and utterly defeated the Dervishes on August 1st, 1889.

During the winter of 1909–10 Mr. MacIver and Mr. C. L. Woolley carried out excavations at **Karanôg,** the site of a Romano-Nubian fortress, which lies a few miles to the south of the Island of Tomâs, and in the cemetery near Anîbah. The fortress of Karanôg is built of mud brick, is quadrilateral and occupies the north-west corner of a fair-sized town, now almost completely buried. The walls of the main building still stand three storeys high; some of the mud brick vaults

are still intact, and the remains of a gate-house and winding stair can be traced. The cemetery lies three miles south of Karanôg. Mr. MacIver thinks that the people buried there were Nubian or Sûdânî. They were a pastoral folk, but they were also hunters, and mighty builders in brick. They worshipped Åmen, Hathor, Anubis, Isis, and Sarapis, but in Nubia, as in Egypt and elsewhere in late times, the position of Osiris was not so exalted as during the earlier periods of Egyptian history. Men no longer wished to become a counterpart of Osiris, but of Rā, and the *ȧakhu*, or spirit-soul, was believed to be of more importance than the *ba*, or heart-soul. Nubian sculpture is rough and heavy, but in the making of pottery the Nubians excelled, and attained to a skill in this craft which has never been equalled by any other African people. As regards their tombs, the chamber in which the body lay was either built in brick or cut in the hard Nile mud. In the former case the rectangular pit had perpendicular sides, and at the bottom of this, so deep that its top should ultimately be well below the level of the ground, was built a chamber or a complex of chambers in mud brick, with vaulted roof and low walls which at the ends were carried up square to the level of the outside of the vault and effectually closed the tomb. When the tomb chamber had received its occupant it was covered in or the door was bricked up, and the straight shaft or sloping dromos was filled again with the refuse that had been thrown out in digging it. In the case of tombs of wealthy people a superstructure was built over the tomb. The tomb often contained a construction in brick in the shape of an ordinary Egyptian stone table for offerings. A little in front of this was a low rectangular **brick altar**, and on it was placed a stone **table for offerings**, with figures of bread-cakes and vessels for water sculptured on it, and having a Meroïtic inscription on its edges. The approach of the tomb was invariably of brick, and offerings were deposited in it. Sometimes sepulchral **stelæ** were set up in the approach. In the superstructure of the tomb of a person of rank there was usually placed a **Ba-statue**, *i.e.*, a statue half hawk, half man. It probably stood in a niche above the tomb, and Mr. MacIver is right in suggesting that on the days when the family of the deceased celebrated commemorative festivals, the Ba-statue was drawn out from its recess into the light so that it might seem to be partaking of the meat and drink which they were consuming. The **superstructure**

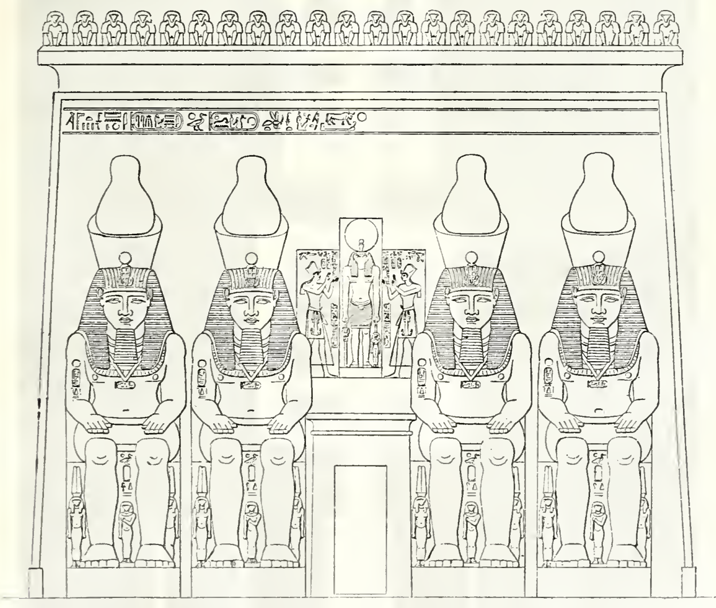
was a rectangle of brickwork which was supposed to stand immediately over the place where the body lay; often, however, it did not do so. The top was either rounded or flat. Offerings were frequently buried in the superstructure. At the back of several of the superstructures Mr. MacIver found a brick construction, either semicircular or with straight sides, to which he has given the name of the **hollow Apse**; here also offerings were placed. In one tomb he found before the approach a brick platform which his Nubian workmen at once recognized as a "praying stool." Full descriptions of all these tombs will be found in *Karanôg*, by Woolley and MacIver, Philadelphia, 1910.

Abû Simbel.

Abû Simbel, on the west bank of the river, 762 miles from Cairo, is the classical Aboccis, and the place called Åbshek in the Egyptian inscriptions. Around, or near the temple, a town of considerable size once stood; all traces of this have, however, disappeared. To the north of the great temple, hewn in the living rock, is a smaller temple, about 84 feet long, which was dedicated to the goddess Hathor by Rameses II and his wife Nefert-Åri. The front is ornamented with statues of the king, his wife, and some of his children, and over the door are his names and titles. In the hall inside are six square Hathor-headed pillars also inscribed with the names and titles of Rameses and his wife. In the small chamber at the extreme end of the temple is an interesting scene in which the king is making an offering to Hathor in the form of a cow; she is called the "lady of Åbshek," and is standing behind a figure of the king.

The chief object of interest at Abû Simbel is the **Great Temple** built by Rameses II to commemorate his victory over the Kheta in north-east Syria; it is the largest and finest Egyptian monument in Nubia, and for simple grandeur and majesty is second to none in all Egypt. This temple is hewn out of the solid grit-stone rock to a depth of 185 feet, and the surface of the rock, which originally sloped down to the river, was cut away for a space of about 90 feet square to form the front of the temple, which is ornamented by four colossal statues of Rameses II, 66 feet high, seated on thrones, hewn out of the living rock. The cornice is, according to the drawing by Lepsius, decorated with 21 cynocephali, and beneath it, in the middle, is a line of hieroglyphics, "I give to thee all

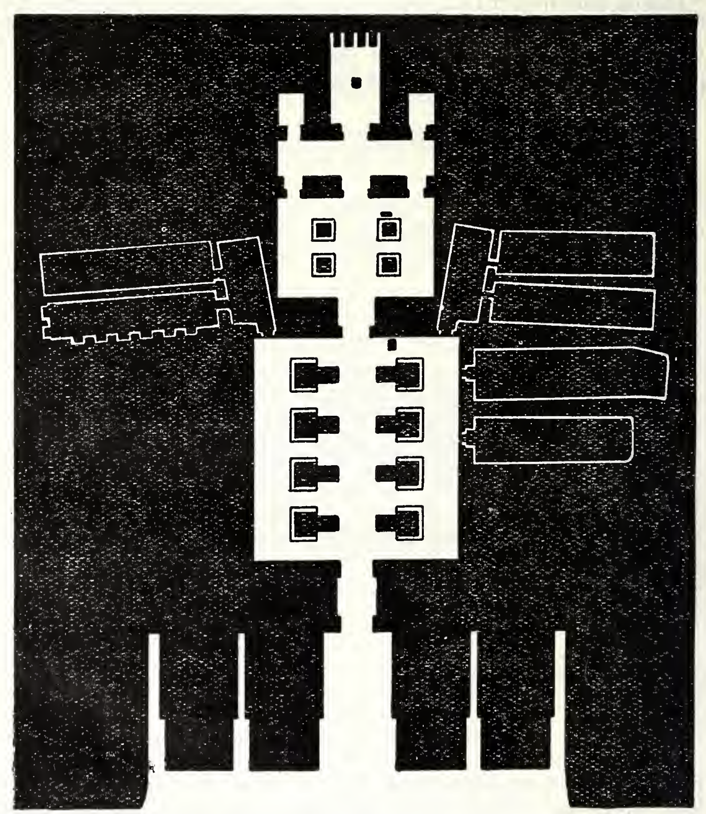
life and strength," on the right side of which are four figures of Rā, and eight cartouches containing the prenomen of Rameses II, with an uræus on each side; on the left side are four figures of men, and eight cartouches as on the right. The line of boldly cut hieroglyphics below reads, "The living "Horus, the mighty bull, beloved of Maāt, king of the North and "South, Usr-Maāt-Rā setep en -Rā, son of the Sun, Rameses, "beloved of Åmen, beloved of Harmakhis the great god." Over the door is a statue of Harmakhis, and on each side of him is a



Statues before the Temple of Abû Simbel.

figure of the king making offerings. Each of the four colossi had the name of Rameses II inscribed upon each shoulder and breast. On the leg of one of these are several interesting Greek inscriptions, which are thought to have been written by troops who marched into Ethiopia in the days of Psammetichus I. The **interior of the temple** consists of a large hall, in which are eight columns with large figures of Osiris about 17 feet high upon them, and from which eight chambers open; a second hall having four square columns; and a third hall,

without pillars, from which open three chambers. In the centre chamber are an altar and four seated figures, viz., Harmakhis, Rameses II, Åmen-Rā, and Ptaḥ; the first two are coloured red, the third blue, and the fourth white. In the sculptures on the walls Rameses is seen offering to Åmen-Rā,

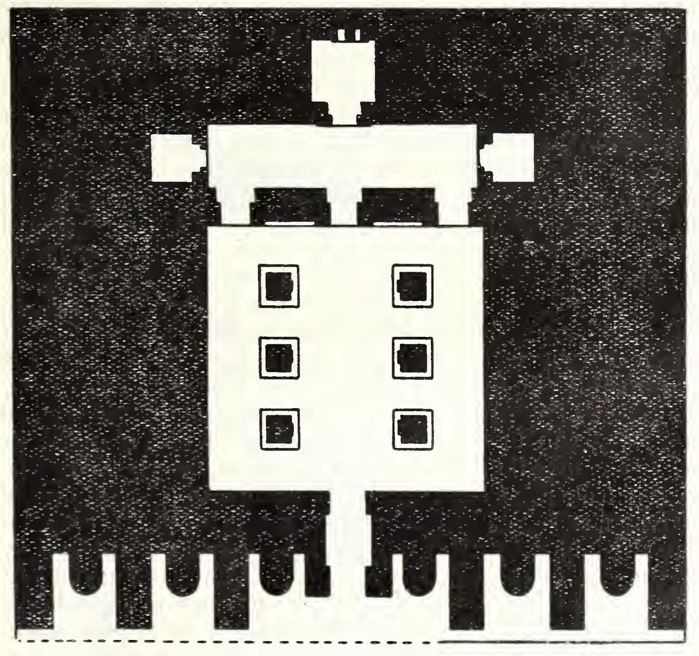


Plan of the Temple of Rameses II at Abû Simbel.

Sekhmet, Harmakhis, Menu, Thoth, and other deities; there is a list of his children, with many small scenes of considerable importance. The subjects of the larger scenes are, as was to be expected, representations of the principal events in the victorious battles of the great king, in which he appears putting his foes to death with the weapons which Harmakhis has given

to him. The accompanying hieroglyphics describe these scenes with terse accuracy.

Conquest of the Hittites by Rameses II.—One of the most interesting inscriptions at Abû Simbel is that found on a slab, which states that in the fifth year of the reign of Rameses II, his majesty was in the land of Tchah, not far from Kadesh on the Orontes. The outposts kept a sharp look-out, and when the army came to the south of the town of Shabtûn, two of the spies of the Shasu came into the camp and



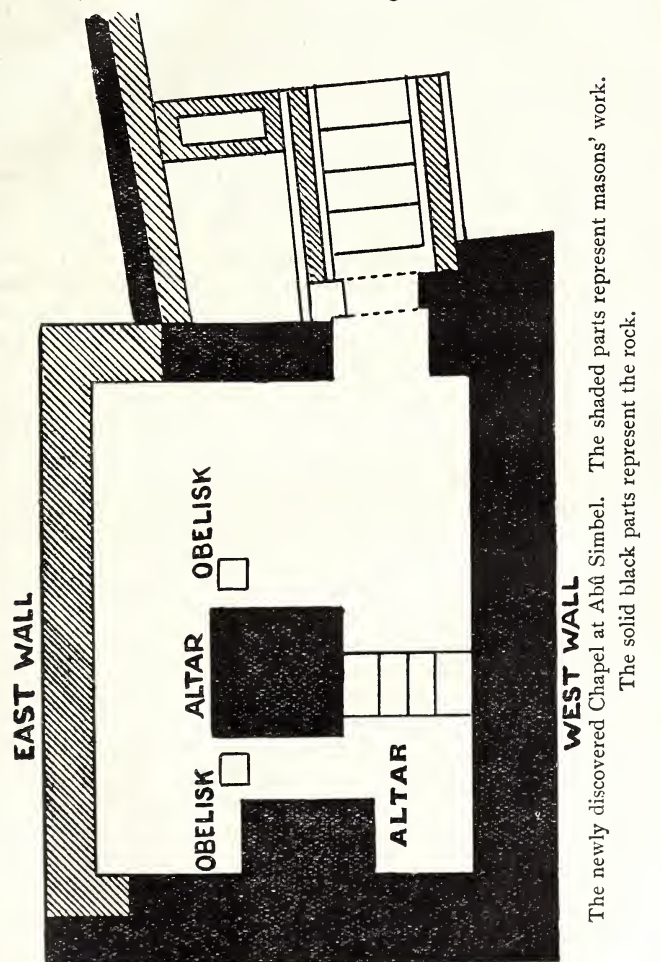
Plan of the Temple of Hathor at Abû Simbel.

pretended that they had been sent by the chiefs of their tribe to inform Rameses II that they had forsaken the chief of the Kheta, and that they wished to make an alliance with his majesty and become vassals of his. They then went on to say that the chief of the Kheta was in the land of Khirebu (Aleppo) to the north of Tunep, some distance off, and that he was afraid to come near the Egyptian king. These two men were giving false information, and they had actually been sent by the

Kheta chief to find out where Rameses and his army were; the Kheta chief and his army were at that moment drawn up in battle array behind Kadesh. Shortly after these men were dismissed, an Egyptian scout came into the king's presence bringing with him two spies from the army of the chief of the Kheta; on being questioned, they informed Rameses that the chief of the Kheta was encamped behind Kadesh, and that he had succeeded in gathering together a multitude of soldiers and chariots from the countries round about. Rameses summoned his officers to his presence, and informed them of the news which he had just heard; they listened with surprise, and insisted that the newly received information was untrue. Rameses blamed the chiefs of the intelligence department seriously for their neglect of duty, and they admitted their fault. Orders were straightway issued for the Egyptian army to march upon Kadesh, and as they were crossing an arm of the river near that city the hostile forces fell in with each other. When Rameses saw this, he "growled at them like his father Menthu, lord of Thebes," and, having hastily put on his full armour, he mounted his chariot and drove into the battle. His onset was so sudden and rapid that before he knew where he was he found himself surrounded by the enemy, and completely isolated from his own troops. He called upon his father Åmen-Rā to help him, and then addressed himself to a slaughter of all those that came in his way, and his prowess was so great that the enemy fell in heaps, one over the other, into the waters of the Orontes. He was quite alone, and not one of his soldiers or horsemen came near him to help him. It was only with great difficulty he succeeded in cutting his way through the ranks of the enemy. At the end of the inscription he says, "Every thing that my "majesty has stated, that did I in the presence of my soldiers "and horsemen." This event in the battle of the Egyptians against the Kheta was made the subject of an interesting poem by Pen-ta-urt; this composition was considered worthy to be inscribed upon papyri, and upon the walls of the temples which Rameses built.

In the course of the works carried out at Abû Simbel M. Barsanti discovered the remains of a **chapel of Rameses II**, hitherto unknown, with its furniture complete, *i.e.*, two altars, two obelisks, and the shrine with the statues of the two gods who were worshipped in the chapel. The chapel is decorated with reliefs on the south and east sides, and is approached by

means of four steps. Over the door is sculptured a winged disk, with pendent uræi. In the centre of the chapel is one altar, about 4 feet 10 inches high, the sides at the base



The newly discovered Chapel at Abû Simbel. The shaded parts represent masons' work. The solid black parts represent the rock.

being about 4 feet 1 inch long, and of the usual form. The east, west, and south sides bear inscriptions containing the names and titles of Rameses II. On the altar are four apes,

each about 3 feet high, standing upright with their paws raised in adoration; two face the east and two face the west. On the north and south sides of the altar, at the corners, are two sandstone obelisks, each about 9 feet 6 inches high. The west and south sides of the north-east obelisk are without inscriptions; on the east side is a small relief representing the king offering ♉ ♉ to Harmakhis, and on the north side is a line of text containing the titles of Rameses II. All four sides of the south-east obelisk are inscribed with texts, and on each of the east, west, and south sides is a small relief. A second altar is sculptured with reliefs, and inscribed with the names and titles of Rameses II. The reliefs on the walls represent the king kneeling before Harmakhis and other gods. By the side of the steps were stelæ; the one on the south side was about 5 feet high, and that on the north side about 3 feet 6 inches. In the sand was found a stele of Ḥui, sculptured with scenes representing the deceased adoring Rā and Thoth, and his wife adoring Ānuqet. A number of other stelæ were brought to light by M. Barsanti in the course of his work, among them being a funerary tablet of Pa-ser, a Viceroy of Nubia in the reign of Rameses II. The clearing of the sand also revealed the remains of a row of statues which stood in front of the Great Temple. Those who visited Abû Simbel before the removal of the sand from the front of the temple will remember the tomb of **Major Tidswell,** who died of dysentery in 1884, and was buried in the sand at the southern end of the cutting in the rock, near the little chapel cleared by Miss Edwards's party in 1873. The grave was made of pieces of stone collected from the ruins of the northern chapel, and was covered over with a slab of grey granite; the sand, which fell continually upon it, was cleared away by M. Maspero's orders once a year, in January. In 1908 it was noticed that the inundation of the preceding summer had undermined the grave, and it was feared that the coming Nile flood would wash it away entirely. Therefore in 1909 the remains were removed and laid in a lead coffin, which was placed in a wooden coffin, and were then laid in a chamber on the north side of the great hypostyle hall until a final resting-place could be found for them. On the 3rd of January, 1910, they were taken out from the chamber and interred in a grave hewn in the corridor to the south of the façade between the base of the last colossal figure on the south and the rock wall. The coffins were laid in cement by M. Barsanti, in the presence of

Prof. Maspero, and covered with a tablet of cement, and on this was laid the granite tombstone, which was fastened in its place securely with mortar. A report of the proceedings was made and copies of it were forwarded to Sir John Grenfell Maxwell, the General commanding the British Army of Occupation, and to the family of Major Tidswell.

A little to the south of the Great Temple is a small building which was reopened in 1873 by Mr. McCallum, Miss Edwards, and party.

A few miles to the south of Abû Simbel, on the east bank, close to the river, at **Gabal Addah**, stands the small temple which was built by Ḥeruemḥeb in honour of Åmen-Rā, and Thoth, the divine scribe of Hermopolis (Khemenu). The temple was used as a church by the Copts, who painted its walls in florid style with figures of Christ and several military saints, with characteristic decorations. But beneath these can be seen the old Egyptian figures of gods sculptured on the walls. The king is proclaimed by them to be the son of the gods of the Cataract country, *e.g.*, Khnemu and Ānuqet of Elephantine, who are made to rank with Thoth, Set, Horus, and other purely Egyptian gods.

On **Faras Island**, 20 miles from Wâdî Ḥalfah, is **Gabal Saḥâbah**, which, by agreement between the Egyptian and Sûdân Governments, marks the **administrative frontier of Egypt** on the south, and the **administrative frontier of the Sûdân** on the north. The cemetery on Faras Island was excavated by Mr. F. L. Griffith during the winter of 1910–11, and several objects of interest were found.

About 15 miles upstream of Abû Simbel we enter the **district of Faras**, which must have been a thriving and important locality in the first century of our era. In recent years the whole site has been carefully examined by Messrs. MacIver and Mileham, who have devoted special attention to the ruins of several Coptic churches which are still to be seen there. The Island of Faras, which the modern inhabitants call **Artêkirgo**, was in old days, as is the case now, the abode of the living, and the western bank of the Nile close to the island formed the resting place of the dead; in the latter place Nubian Christians of the early centuries built funerary churches. Small temples were built there even under the XVIIIth dynasty, and the tombs in the hills, and the ruins of Ptolemaïc buildings and of small Roman temples, prove that the district was of considerable importance

commercially. Close to the river bank is a good example of the fortresses which are found in several parts of Nubia; the area enclosed by the outer wall of the **fortress** is about 980 feet long and 580 feet broad. The lower part of the wall is of ashlar to a height of 13 feet, and its upper part of crude brick; one part of this wall is still 33 feet high, and the thickness of the north-west wall is 33 feet. Mr. Mileham found remains of Roman pottery in the brickwork, and therefore attributes the fortress to the first century A.D. In the area of the fortress fragments of stone were found bearing the cartouches of Rameses II and Thothmes III. A portion of the citadel, or "keep," still remains, and when complete it is thought to have had four storeys and to have been about 65 feet high. At one time one of its chambers was used as a church. In and about the area of the fortress are remains of churches, cemeteries, &c. On the ledge of rock which skirts the desert are the ruins of two **Coptic churches.** The northern church was about 65 feet long and 42 feet broad, and appears to have been built in the ninth century. The southern church is a little longer, being nearly 75 feet long and nearly 40 feet broad, and it was probably built in the eighth century. A glance at the plan published by Mr. Mileham shows that the building is askew, and the maintenance of the fabric must have caused the ecclesiastical authorities of the day much anxiety. It helps us to understand why the ruin of such churches is so complete. Opposite to the village of Faras, on the east bank of the Nile, are also ruins of two **Coptic churches**; they are close to the village of **Adendân.** The northern church stands on Gabal Saḥâbah, which marks the boundary between Egypt and the Sûdân, and is about 75 feet long and 42 feet wide. The columns are sandstone monoliths about 13½ feet high. The southern church is smaller, stands behind the hill, and was of unusual construction. It had a central dome with a vaulted aisle on each side of it.

At **Sarrah,** about 15 miles north of Wâdî Ḥalfah, on the east bank of the Nile, are the remains of a ruined town, with a small **Coptic church,** with a dome, standing among them. The town was built on the ruins of an **Egyptian fortress,** the area covered by which was about 360 feet long and 260 feet broad. This fortress was protected by a ditch about 11 feet deep. The church is 30 feet long and 20 feet wide, and consists of a sanctuary, two sacristies, nave, aisles and a staircase. To the north is a smaller church, 27 feet long and

23 feet broad; to the south is another church 30 feet long and 23 feet 6 inches broad. Nearly a mile to the south of the area of the fortress is another church, which is built entirely of brick.

About 9 miles to the north of the railway station at Tawfîḳîyah, on the left bank of the Nile, opposite to the village of **Dabêrah**, are the ruins of an ancient **Coptic church**, which were excavated by Messrs. MacIver and Mileham in 1908. The church was rectangular and was about 54 feet long by 40 feet wide, and consisted of Haikal, or sanctuary, nave, two aisles, two staircases, and a bay at the west end. The pulpit stood against the eastern pier of the north arcade. The church had an upper storey, which was divided into separate chambers with communicating doors corresponding to the lower divisions of the lower floor. In the Haikal was found the tombstone of Peter the Deacon, the son of Abbâ George, the Bishop of Korti, who died in the 745th year of the Era of the Martyrs, *i.e.*, A.D. 1029.

Wâdî Ḥalfah.—On the east bank of the Nile, 802 miles from Cairo, the town of **Wâdî Ḥalfah**, with its new suburb **Tawfîḳîyah**, marks the site of a part of the district called **Buhen** in the hieroglyphic inscriptions, where, as at Dêrr and Ibrîm, the god Harmakhis was worshipped. The ancient town lay on the west bank. On the plain to the east of the town some interesting flint weapons have been found, and a few miles distant are the fossil remains of a forest. On the western bank of the river, a little further to the south, are the remains of a temple built by **Usertsen I**, a king of the XIIth dynasty, where Champollion discovered a portion of a stele inscribed with the names of the tribes which Usertsen conquered. This temple was in use until the XXth dynasty. Further to the south are fine remains of the temple built by **Thothmes II** and **Thothmes III**, which contains an account, cut on the west side of a square column in the forecourt, of the victories of Thothmes III over the tribes of the Eastern Desert in the 23rd year of his reign. The painted reliefs are very good and interesting. On the columns are several Greek and Egyptian inscriptions, some of the latter being dated in the reigns of kings of the XIXth and XXth dynasties. The above temples were excavated by Colonel (now Sir) C. Holled Smith in 1886–7, and in 1892 by Captain H. G. Lyons, who also cleared out the ruins of several buildings on both banks of the river. Later the XVIIIth dynasty temple was again cleared out by Colonel Hayes Sadler and Mr Somers Clarke,

and in 1905 Sir Reginald Wingate caused it to be again cleared, a wall to be built round it, and a portion of it to be covered over with a light roof to protect the wall paintings. These latter works were performed by Mr. J. W. Crowfoot, Inspector of Education in the Sûdân, and Mr. Scott Moncrieff, of the British Museum.

In the winter of 1909–10 Mr. Randall MacIver continued excavations on the site of the Egyptian town of Buhen, or Wâdî Ḥalfah. The portion of the northern temple which was built by Ȧmen-ḥetep II is well known, but in removing the stone pavement which formed the floor Mr. MacIver found a fine doorway inscribed with the name and titles of Ȧāḥmes I, the first king of the XVIIIth dynasty. At a lower level an entire system of walls was disclosed, and it seems clear that the parts of them which underlie the northern temple are the remains of the XIIth dynasty temple, whence came the well-known stele of Usertsen I now in the Florence Museum. The remains of the XIIth dynasty temple were cleared down to the lowest foundation level, and as the *débris* was removed to a distance the walls and buildings were left open to view. It was then seen that the inner fortification wall went down to a depth of 13 feet below the desert sand, and formed part of the XIIth dynasty system. This wall bounds Ḥatshepsut's temple on the north and continues on the east in front of the temple, where it rises at one point in a high mass which is generally described as the remains of a pylon. Both pylon and wall belong to the XIIth dynasty, and form part of a building which underlies the temple of Ḥatshepsut. As the result of Mr. MacIver's work this temple, enclosed by its modern wall and protected by its modern roof, stands on a high platform in a very commanding position. On the west bank of the Nile, a few hundred yards to the south of the girdle wall of the fortress, are the ruins of a Coptic church, which were excavated by Mr. MacIver in 1909. This church was a reconstruction of an earlier building, of which some of the old walls and piers had been buttressed by additional brick walls, and a number of new piers had been added.

A visit to the bâzârs of Tawfîḳîyah is recommended, where are to be seen many fine examples of Sûdânî work in silver and leather, and various interesting objects from the districts of the Blue and White Niles, and even from Abyssinia. Many anticas from the Pyramids of Marawî and from Karmah find their way now to these bâzârs.

A few miles to the south of Wâdî Ḥalfah begins the **Second Cataract**, and a prominent feature in the landscape is the famous **Rock of Abûṣîr**, on which are inscribed the names of hundreds of travellers of all nations, and frequently the dates when they visited the Rock. The view of the northern end of the Second Cataract which the traveller obtains from this rock is surprisingly grand. Near this Rock and quite close to the tomb of Shêkh 'Abd al-Ḳâdar is a small **Coptic church** which Mr. Somers Clarke thus describes: "This very little building, of crude brick, "retains a good deal of its vaulted roof, and consequently "the paintings with which the walls have been covered are "better preserved than in any other place visited. The "paintings are of the usual type. Making use almost entirely "of earth colours, as red and yellow ochre, with black for "the outlines, the artist depicted grim figures of a Byzantine "type. The building is so exposed to injury from the "passer-by, that we deemed it impolitic to uncover more of "the painting than is now to be seen until we were assured "that steps could be taken to protect the little building."

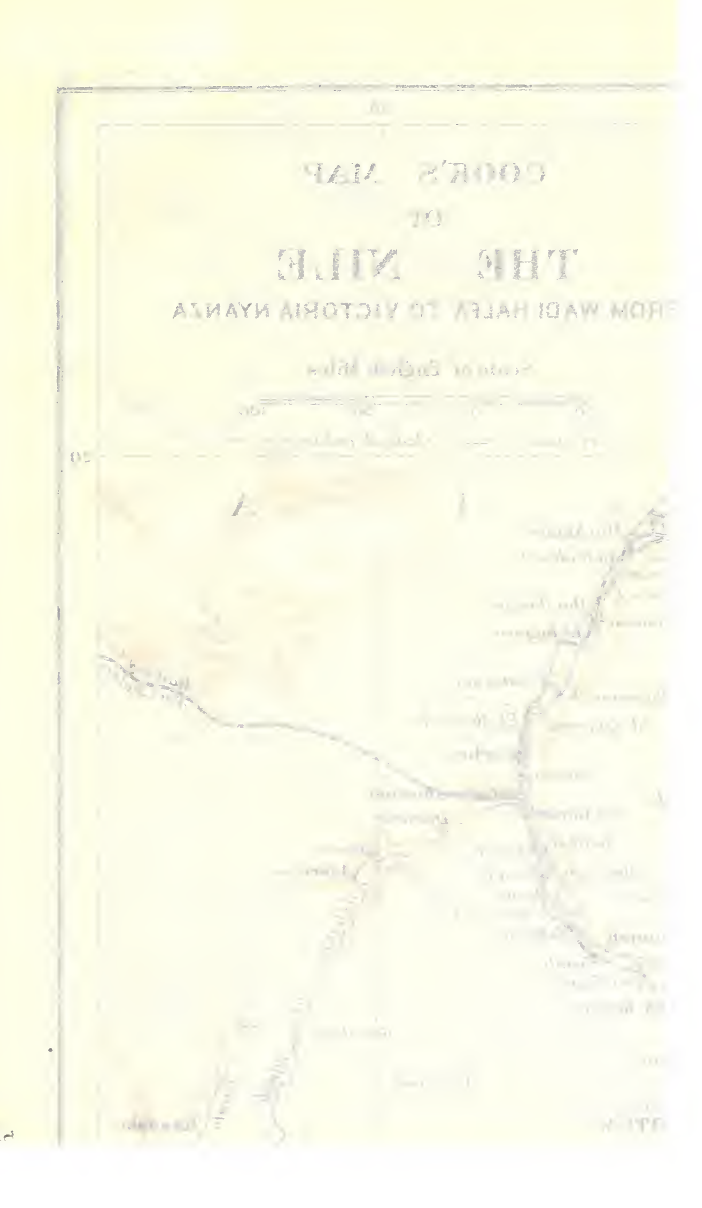
Ruins of a church are also to be found a little to the south. About 12 miles to the south of Wâdî Ḥalfah, on the west bank, is the **fortress of Mirḳîs**, or **Mirgissi**, or Murgissi, which dates from the XIIth dynasty, and is one of the great series of forts which were built by the kings of that dynasty when they occupied the Sûdân. It is built of crude brick and stands on a steep bank about 80 feet above the Nile. The outer walls enclose an area of 820 feet by 465 feet, the great spurs of walls standing forward 150 feet or more. The walls on the north, south, and west sides are double, and have spur-walls some 18 or 20 feet thick. On the island of **Dabah** just opposite is another crude brick fortress, with an area of 736 feet by 195 feet. Twenty-two miles further south, on the west bank, and standing on a high hill opposite **Sarras**, is a similar fort, with a strongly fortified gateway. All these are built on the same plan, and resemble the fortress on Gazirat al-Malik, near Samnah, and that on an island in the Nile some 10 miles south of Kôshah, and several others which the writer has visited. The whole of this district is full of interesting remains, and many of the islets in the river deserve careful examination.

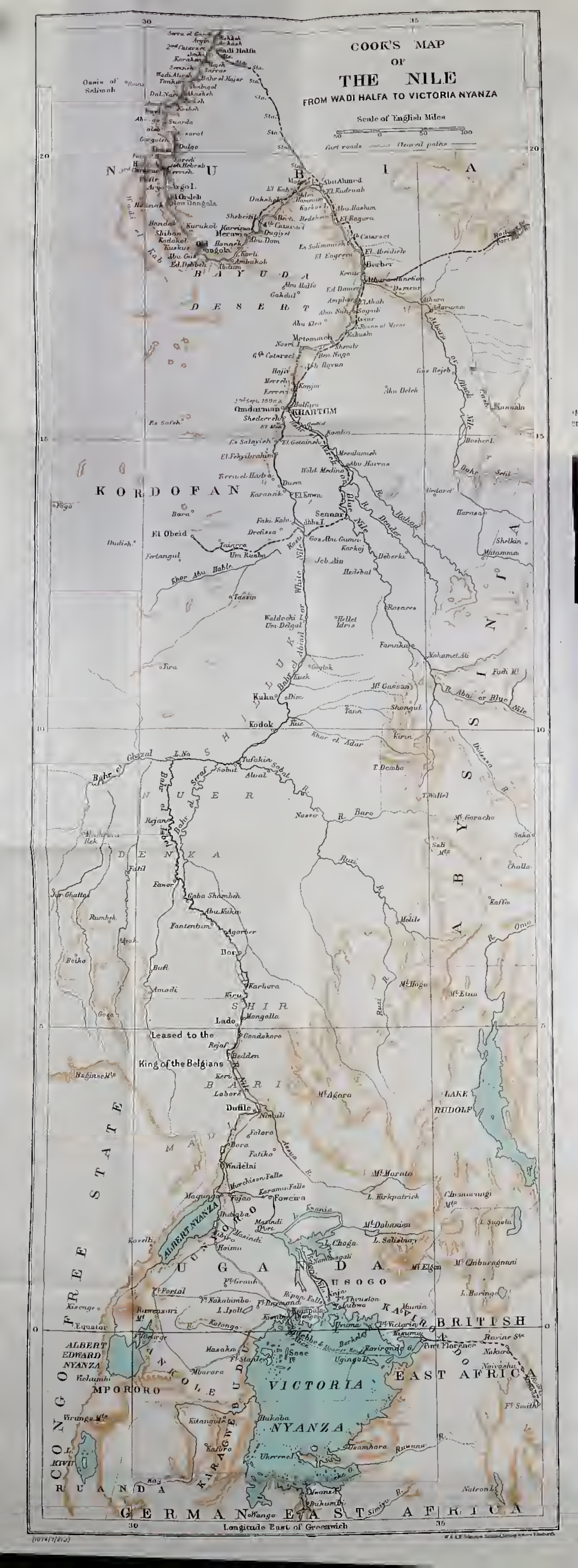
PART IV.

THE ANGLO-EGYPTIAN SÛDÂN AND THE GREAT LAKES.

History of the Sûdân, Wâdî Ḥalfah to Kharṭûm, by the Desert Railway, and by river viâ Donḳola and Marawî and the Karêmah Railway, the Pyramids of Marawî, Nurî, Kurru and Zûma, Abû Ḥamad, Berber, Atbarâ, the Nile, Red Sea Railway, Pyramids of Meroë, Shendî, Omdurmân, Kharṭûm, Kharṭûm to Rusêres, Kharṭûm to Victoria Nyanza, Routes from Ḳanâ to the Red Sea.

1. Ancient History of the Sûdân. — The Sûdân, or Country of the Blacks, in the earliest dynastic times began at Elephantine or Aswân, and all expeditions into the country to the south of the First Cataract started from this place. It is probable that there never was a time when caravans from Egypt did not travel into the Sûdân for trading purposes, but there is no definite mention of any invasion of the country until we come to the reign of **Seneferu**, a king of the IVth dynasty, about 3800 B.C. From the Stele of Palermo, we learn that this king invaded the Sûdân and brought back 7,000 men and 200,000 head of cattle. Thus it is clear that even in those remote days the kings of Egypt needed black slaves to carry out their works, and that they regarded the Sûdân as the natural source whence they were to be obtained. Under the VIth dynasty, several Egyptian officials were sent on trading missions to the Sûdân, and they were eminently successful in their undertakings. One of these, the official **Unà**, made his way far to the south where large trees grew, and there seems to be good reason for believing that he visited Dâr Fûr, Kordôfân, and also the country between the White and Blue Niles. Another official, **Ḥer-khuf**, whose tomb is at Aswân, conducted several trading missions into the Sûdân, and he went to the **Land of the Spirits**, which seems to have been near Punt, which the Egyptians regarded as their original home, and brought back a pygmy, or dwarf, who was afterwards sent to dance before the king at Memphis. The word used for "pygmy" is *ṭeng*, in Amharic, or Abyssinian, *denk* ድንክ: As there were pygmies in Egypt in the Archaic Period, about 4200 B.C., it is clear that there



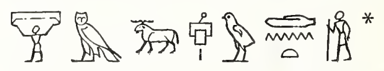


COOK'S MAP
OF
THE NILE
FROM WADI HALFA TO VICTORIA NYANZA
Scale of English Miles
50
0
50
100
NUBIA
BAYUDA DESERT
KORDOFAN
El Obeid
KHARTUM
Omdurman
Berber
Atbara Junction
Sennar
Kodok
Lado
Gondokoro
Leased to the
King of the Belgians
Dufile
LAKE RUDOLF
ALBERT NYANZA
UGANDA
USOGO
VICTORIA
NYANZA
ALBERT EDWARD NYANZA
MPORORO
RUANDA
KARAGWE
CONGO FREE STATE
BRITISH
EAST AFRICA
GERMAN EAST AFRICA
Equator
Longitude East of Greenwich

must have been intercourse between Egypt and the Sûdân before Seneferu made his great raid into that country. A king of the Vth dynasty, Àssà, also sent an official called Ba-ur-Ṭeṭ on a similar mission, and was so pleased with the pygmy that he conferred very high honours upon Ba-ur-Ṭeṭ.

Under the XIth dynasty one of the Menthu-ḥetep kings occupied Buhen, or Wâdî Ḥalfah, and from about 2600 B.C. to 1000 B.C. this place was to all intents and purposes the boundary of Egypt on the south. The kings of the XIIth dynasty first tightened their hold upon the country, and built forts at Kalâbshah, Daḳḳah, Korosko, Ibrîm, and Buhen, and they made strong outposts at Samnah and Kummah, about 40 miles south of Buhen. The king whose name stands pre-eminent in connection with the conquest of the Sûdân is **Usertsen III.** Under the XIIth dynasty the Sûdân supplied Egypt with **slaves and gold.** The kings of the XVIIIth dynasty "enlarged the borders of Egypt" in the Sûdân until their territory reached to the Blue Nile. Àmen-ḥetep III built a large temple at Ṣulb, wherein he himself was worshipped as a god, and he built another at Saddênga in honour of his wife Ti. Under this dynasty the Sûdân was divided into provinces, the governors of which were under the jurisdiction of an overlord, who was appointed by the king of Egypt and called the "prince of Kash" (Cush). The capital of Egypt's Nubian Kingdom was at the foot of the Fourth Cataract, and was called **Napata.** The country was ruled by Egyptians, who brought with them into the Sûdân the language, civilization, arts, manners and customs, etc., of Egypt. The peoples and tribes south of Wâdî Ḥalfah caused the great kings of the XVIIIth and XIXth dynasties much trouble, and it is very doubtful if Egypt had any effective dominion beyond the Fourth Cataract. The "royal son of Kash" (Cush) was, no doubt, a great official, but Kesh, or "Ethiopia," as the word is generally translated, was a geographical expression with limited signification, and that the country of his rule included the whole country which is now called Ethiopia is an unwarranted assumption. The fact is that the Second and Third Cataracts and the terrible, waterless Eastern desert, the **Baṭn al-Ḥagar,** proved almost insuperable barriers in the way of moving large masses of men from Egypt to the south. For the cataracts could only be passed in boats during a few weeks at the period of the inundation, and the desert between Korosko and Abû Ḥamad, and that between Wâdî Ḥalfah (or Behen, to use the Egyptian name) and Abû Ḥamad, struck terror into

the hearts of those who knew the character of the roads and the fatigues of travelling upon them. So long as the natives were friendly and rendered help, small bodies of troops might pass to the south either by river or desert, but any serious opposition on their part would invariably result in their destruction. So long as trade was brisk and both buyer and seller were content, and the nation to which each belonged could hold its own, wars were unnecessary; but as soon as the tribes of the South believed it possible to invade, conquer, and spoil Egypt, they swooped down upon it in much the same fashion as the followers of the Mahdî and Khalîfah did in recent years. Under the XVIIIth, XIXth and XXth dynasties Egypt received large quantities of gold from the Sûdân, the Blue Nile, and the Eastern Desert, and her revenue from these sources must have been equivalent to many millions of pounds sterling. About 900 B.C. the priests of Åmen were compelled to leave Thebes, and they took refuge at Napata, where the Nubians had established themselves as an independent Power. About 740 B.C. **Piānkhi**, a native king who reigned at Napata (Gabal Barkal), stirred up by the news of a revolt in the Delta, invaded Egypt, captured city after city, and finally seized Memphis and Heliopolis, and so became master of all Egypt. Early in the seventh century B.C. **Tirhâḳâh**, another Nubian king, invaded Egypt, and he advanced north to the Delta, and expelled the Assyrian governors who had been appointed over the chief cities by Esarhaddon, but finally was defeated by Ashur-bani-pal, king of Assyria, and had to retreat to the south. The attack on Egypt was renewed by another Nubian king called **Tanut-Åmen**, who was, however, utterly routed by the Assyrians, and he "departed to his dark doom." For more than one hundred years the Sûdân was left in peace so far as Egypt was concerned, and during this interval the kings of Napata made themselves masters of the country to the south. About 526 Nubia was invaded by **Cambyses**, but the king of Napata, who was called **Nåstasen**, or Nåstasenen, collected an army, and having advanced northwards defeated the Persians at some place on the Third Cataract. The name of Cambyses appears in the Nubian king's annals (line 39) under the form of



KA - M - BA - S - U - ṬENT.

* Some writers reject this identification.

Soon after the reign of this king several wars broke out between the kings of the Northern Kingdom, which extended from the Napata to Philæ, and the Southern Kingdom of the Sûdân, which extended from the Fourth Cataract to the Blue Nile. Of many of these wars we have no knowledge, but it is clear from the Annals of Ḥeru-sa-àtef that the struggle for supremacy in the Sûdân at the time was a severe one. After Egypt had fallen under the rule of the Persians and Macedonians, the princes of Napata continued to be their own masters; but at a later period, probably whilst the Ptolemies were reigning over Egypt, they either moved their capital further south to a site on the fertile plain which is bounded by the Atbarâ and the Nile and the Blue Nile, and is commonly called the **Island of Meroê**, or were succeeded in their sovereignty by another branch of the same race as they themselves who were indigenous to the province. The princes of Meroë built temples with ante-chapels, pylons, courts, hypostyle halls, sanctuary chambers, etc., taking as their models the temples of Napata, which in turn were copied from the temples of Egypt, and they decorated them with bas-reliefs and scenes, and inscriptions, chiefly in the hieroglyphic character. Their buildings lack the beauty and finish of the temples of Egypt, but many of them must have been grand and impressive. In the third century B.C., one of the kings of Northern Nubia called Àrq-Àmen was a great friend of Ptolemy II, Ptolemy III, and Ptolemy IV, and his authority in the north appears to have extended to Philæ. The Ptolemies had no dominion over Nubia, but they carried on a brisk trade in the Eastern Sûdân by way of the Red Sea, and they had large numbers of elephants brought from there. The gold trade seems to have declined at this period, either because the mines were exhausted, or because the veins of quartz were so far below the surface that the working of them had become very difficult.

Probably about 200 B.C. the rulers of the Southern Kingdom succeeded in overcoming the kings of Napata, and the central power in the Egyptian Sûdân established its capital on the Island of Meroë. This region was, about this time, and for several generations later, ruled by Queens of Meroë, each of whom bore the title of "**Candace.**" Strabo (XVII, 1, 54) speaks of the "officers of Candace," and Pliny says (VI, 30) that "a female, whose name was Candace, ruled over the "district, that name having passed from queen to queen for "many years." Lepsius thought that he had found the original

of the name "Candace" in , one of the names of Queen Åmen-ārit, who built Pyramid No. 1 of Group A at Meroë. The transcription of the signs in this cartouche is, however, KENTÅḤEBIT, which does not suit the theory; moreover, this queen is the only one who bears the name of "Kentåḥebit," and if it was the equivalent of "Candace," other queens must have been called by it.

In the first century B.C. the Northern Kingdom appears to have been ruled by nominees of the Queens of Meroë, and about 30 B.C. it seems that the Nubians made an attempt to assert a supremacy over Upper Egypt. The great queen who built temples at Nagaa and Wâd Bâ Nagaa also built a temple at 'Amârah, about 120 miles from Wâdî Ḥalfah, and this probably caused a dispute between herself and the Romans, who, on the death of Cleopatra, became masters of Egypt. "**Candace**" sent a force to the north, seized Philæ, Elephantine, and Syene, and made all the people there slaves. In 24 B.C., Ælius Gallus invaded Nubia, destroyed the forces of Candace, laid waste the country, and captured her capital Napata. Candace was obliged to send messengers to Rome to sue for peace and the restitution of her territories.

During the first three centuries of the Christian Era the Blemmyes of the Eastern Desert, and the Nobadae of the Western Desert, gave the Romans a great deal of trouble, and the Emperor Diocletian (284–305) was obliged to make them an annual payment to prevent them from harassing Roman dominions. In 453 these wild tribes made an agreement with the Romans to keep the peace for 100 years, and, on the whole, they observed their promise fairly well. Meanwhile Christians had been steadily making their way into Nubia from the first century onwards, and before 550 a native Christian king called **Silko** succeeded in defeating the Nobadae tribes and in making himself master of all Nubia. He made the town of Donḳola his capital, and Christianity became the official religion of the country. The form of Christianity which he professed was that of the Egyptian Jacobites, who acknowledged the Patriarch of Alexandria as their head. The Liturgy used in the Nubian churches was in Greek, and the Scriptures were read in Greek, and the churches were decorated with frescoes containing figures of the Apostles and other saints, after the manner of the churches in Alexandria. Later the Nubian Christians adopted Byzantine methods of decoration, and as late as the 14th

century churches were in existence on the Island of Meroë which in form and internal ornamentation resembled the churches of Constantinople.

Of the manners and customs of the Nubians or Ethiopians classical writers do not speak very highly. Strabo (xvii, 2, § 2, *ff.*) says that they went naked for the most part; that they were nomadic shepherds of sheep, goats, and oxen, which were very small. They lived on millet and barley, from which also a drink was prepared, and made use of butter and fat instead of oil. They fought with bows and arrows, and some of their soldiers were armed with leather shields. They worshipped Hercules, Isis, and Pan (by which we may understand Åmen-Rā, Mut, and Khensu), and believed in one god who was immortal, and in another who was mortal and without a name. It is clear, though, that Strabo often refers to tribes and peoples who lived south of Kharṭûm, and that he treats them all as Ethiopians or Nubians.

2. Modern History of the Sûdân.—Soon after the conquest of Egypt by 'Amr ibn al 'Âṣî in **640**, the Muslims marched into Nubia, and having conquered the king of Donḳola they fixed the **Baḳt** or tribute which the country was to pay annually to the Arabs. A formal treaty was drawn up and signed by representatives of the Arabs and Nubians, and, on the whole, the latter observed it very well. In **878** the Nubians rebelled and were punished. In **956** the Muslims took Primis, and in **969** Gawhar invited the king of Nubia to turn Muḥammadan. In **1005** the Nubians overran Egypt. In **1173** Shams ad-Dawlah Tûrân Shâh invaded Nubia because the king refused to pay the tribute. He took Ibrîm, destroyed the city, and captured 700,000 prisoners. In **1275** the Muslims annexed the Sûdân. In **1287** the Muslims raided the country far to the south of Donḳola. In **1365** the Nubian tribe of Kanz seized Aswân. About **1500** the **Fûng tribes** finally destroyed the Christian kingdom of Alwa, and set up a king whose capital was at Sennaar. In **1517 Salîm** captured Egypt, and sent troops by sea to Maṣawa' to occupy the Sûdân. The Fûngs, however, held their own and continued to be masters of the country. From Egypt numbers of Turkish and Bosnian troops entered Nubia *viâ* Aswân, and they took possession of the Nile Valley as far south as the Fourth Cataract. The rule of the Fûngs lasted from 1505 to the end of the XVIIIth century. In other parts of the Sûdân there reigned :

1. The 'Âbdallât Shêkhs, *i.e.*, 18 kings in about 230 years.

2. The Kings of Fâ-Zôglî, *i.e.*, 17 kings in 215 years. **3. The Kings of Shendî,** *i.e.*, 16 kings in 215 years. **4. The Sulṭâns of Dâr Fûr,** *i.e.*, 26 Sulṭâns in 420 years (A.D. 1445–1865). The Sûdân was invaded in **1820** by **Muḥammad 'Alî,** who wished to recruit his army from its tribes, and to collect a revenue from it; he had heard that there was much gold in the country, and he determined to get possession of it. He decided to form an army of Sûdânî men, and the raids which he made to obtain men laid the foundation of one of the most hideous phases of the slave trade. The army he sent was under the command of his son Ismâ'îl, and its success was decisive. Ismâ'îl occupied Berber and Shendî, and then advanced to Sennaar. In **1821** Ismâ'îl ascended the Blue Nile, plundering the tribes as he went, and his brother Ibrâhîm led a force up the White Nile. **Dâr Fûr and Kordôfân were annexed** by the Daftardar Muḥammad, the son-in-law of Muḥammad 'Alî, and he perpetrated terrible atrocities. On the east the Egyptian force reached Tomat on the Atbarâ, and in the south as far as the Dinka country. When Ismâ'îl returned to Shendî he and his nobles were invited to dinner by Nimr the Mekḥ, or governor, and when all were merry, the palace was set on fire, and the Egyptians were burned to death. Muḥammad 'Alî promptly sent a third expedition into the Sûdân, and punished the people for the death of his son, and a terrible massacre took place at Shendî. In **1822** the modern town of **Kharṭûm was founded.** In **1834** Khurshîd Pâshâ conquered the Abyssinians at the Battle of Sennaar, and thus the whole of the Sûdân was "Egyptianized." Muḥammad 'Alî was disappointed with the Sûdân, because it did not yield gold enough for his needs, and the chief results of his invasion were the destruction of the ivory trade, caravans ceased to exist as business concerns, and the slave trade flourished as it had never done before. In **1841** a serious revolt at Kassala was quelled by Muḥammad 'Alî's troops, and the Sûdân was divided into the provinces of Fâ-Zôglî, Sennaar, Kharṭûm, Taka (Kassala), Berber, Donḳola, and Kordôfân. **Sa'îd Pâshâ visited the Sûdân in 1856,** and carried out a number of valuable reforms; above all he reduced taxation on irrigation, and abolished the collection of taxes by soldiers. He was in favour of evacuating the Sûdân, and only gave up the idea at the earnest entreaties of the shêkhs. In **1865** another revolt broke out at Kassala, and when it was suppressed by Mazhar

Pâshâ the Sûdânî soldiers who had garrisoned the town were sent to Egypt. In **1870** the copper mines of Ḥufrât an-Naḥâs, in the Baḥr al-Ghazâl, were seized for the Government by Helale, a native of Dâr Fûr. Between 1869 and 1873 **Sir Samuel Baker** led an expedition to the Upper Nile intending to suppress the slave trade, and to bring the countries south of Gondokoro under the rule of Egypt, to introduce navigation on the great Equatorial Lakes, and to foster trade and to open up new trade routes. He succeeded in establishing a number of fortified posts, and prepared the way for Egyptian rule; he was the first Englishman to fill a high post in the service of the Khedive. In **1874** Munzinger Bey annexed Senhît, on the Abyssinian frontier. In **1874 Colonel Gordon** was appointed Governor of the Equatorial Province, and in the following year **Zubêr Pâshâ** began the conquest of Dâr Fûr, and Harar, in Abyssinia, was annexed to Egypt. In **1876** war broke out between the Egyptians and Abyssinians; the latter were victorious, and made prisoner Ḥasan Pâshâ, the Khedive's son. In **1877** Colonel Gordon was made Governor-General of the Sûdân, and he suppressed a revolt in the Dâr Fûr province, and another in the Baḥr al-Ghazâl. The latter revolt was headed by Sulêmân, the son of Zubêr Pâshâ, and he was captured by Gessi Pâshâ, who had him shot; Zubêr laid his death at Gordon's door, and a very large proportion of the troubles which fell upon the Sûdân subsequently were stirred up by him because of his hatred for Gordon personally, and for the power which he represented.

In **1881 Muḥammad Aḥmad,** better known as the **Mahdî,** declared himself. At the time the Sûdân, under the rule of Egypt, was a tract of country about 1,650 miles long and 1,400 miles wide. It extended from Aswân to the Equator, and from Dâr Fûr to the Red Sea. In **1884** General Gordon was sent to arrange for the evacuation of the Sûdân, and to suppress the slave trade; on his way up to Kharṭûm he declared his mission, and by so doing practically sealed his own fate. He was besieged in Kharṭûm in April of the same year, and in August Great Britain determined to send a relief expedition. "A forlorn hope of British soldiers is led "the longest and the hardest way round to the goal, along "the line of greatest resistance: but struggles manfully and "heroically against heavy odds, until—it really is 'too late'! "Kharṭûm succumbs, and English chivalry loses its noblest "representative." **General Gordon was murdered on**

January 26th, 1885, a little before sunrise. Early in **1896** the reconquest of the Sûdân was decided upon. On June 7th the **Battle of Farkat** was fought: 1,000 Dervishes were killed or wounded, and 500 were made prisoners. On August 7th, **1897,** the Dervish garrison at Abû Ḥamad was attacked by the Egyptians, and out of its 1,500 defenders 1,300 were killed or wounded. On April 8th, **1898,** the **Battle of the Atbarâ** was fought, and the Dervish loss was 3,000 killed, and 2,000 were taken prisoners. On September 2nd the **Battle of Omdurmân** was fought; the Dervish loss was 11,000 killed, 16,000 wounded, and 4,000 were made prisoners. On September 4th the British and Egyptian flags were hoisted at Kharṭûm, and a memorial service for General Gordon was held there; on the 19th the Egyptian flag was hoisted at Fâ-Shôdâ. On November 24th, **1899,** General Sir F. R. Wingate pursued the Khalîfah to Umm Dabrêkât, and after a fierce fight, in which the Dervishes lost 1,000 men killed, the Khalîfah seated himself upon a sheepskin, and died with his Amîrs, riddled with bullets. The **death of the Khalîfah** was the death blow to Mahdism. The cost of the Dongola campaign in 1896 was £E.725,641; of the Wâdî Ḥalfah–Kharṭûm Railway £E.300,000, and of the military operations which resulted in the reconquest of the Sûdân £E.1,328,713, in all £E.2,354,354. The agreement as to the Anglo-Egyptian Condominium in the Sûdân was signed in Cairo, **January 19th, 1899,** by H. E. Boutros Ghali, and Lord Cromer. This Agreement declares that the word "Sûdân" means all the territories south of the 22nd parallel of latitude; that the British and Egyptian flags shall be used together, both on land and water, throughout the Sûdân, except in the town of Sawâkin, wherein the Egyptian flag alone shall be used; that the supreme military and civil command in the Sûdân shall be vested in one officer, termed the "Governor-General of the Sûdân"; that the jurisdiction of the Mixed Tribunals shall not extend, nor be recognized for any purpose whatsoever, in any part of the Sûdân, except Sawâkin; that the importation of slaves into the Sûdân, as also their exportation, is absolutely prohibited, etc. The "Capitulations" are not in force in the Sûdân, and there are no foreign Consuls. The garrison in 1914 was 16,000 men.

3. The Country and its divisions.—The Egyptian Sûdân is bounded on the north by the 22nd parallel of north latitude, on the south by the Lâdô Enclave and east of the Nile by the 5th parallel of north latitude, on the east by the

Red Sea and Abyssinia, and on the west by a line running through the Libyan Desert (defined by the Anglo-French Agreement of March, 1899), by Wadâi, and by the watershed between the Congo and Shari on one side, and the Nile on the other (Gleichen, *Handbook*, vol. 1, p. 1). Its greatest **length** is 1,250 miles, its greatest **width** is 1,080 miles, and its **area** is about 1,024,000 square miles. Its capital is **Kharṭûm**, 15° 36′ north latitude, 32° 32′ east longitude. The Sûdân is administered by a Governor-General assisted (in 1914) by 110 British officers and officials, *i.e.*, by Mûdirs, or Governors of Provinces, Inspectors and Assistant-Inspectors, and by native Ma'mûrs.

For administrative purposes the Sûdân is divided into sixteen Provinces, eight first class, and eight second, and each Province is governed by a resident Mûdir. The names of the Provinces are as follows :—

First Class.

1. **Dongola** (Donḳôla). Capital **Marawî.** Its other chief towns are New Dongola, Khandaḳ, Dabbah, and Kûrtî. Area 124,300 sq. m.

2. **Berber.** Capital **Ad-Dâmar.** Its other chief towns are Rubâṭâb, Berber Town, Berber District, and Shendî. Area 98,600 sq. m.

3. **Kharṭûm.** Capital Kharṭûm. Its other chief towns are Omdurmân and Wâd Ramlah. Area 4,600 sq. m.

4. **Sennaar.** Capital **Sengah.** Its other chief towns are Wâd Madani, Ruṣêres, Dindar, Dâr Fûng, and Abû Na'âmah. Area 38,700 sq. m.

5. **Fâ-Shôdâ** (Upper Nile, or Kôdôk). Capital **Kôdôk.** Its other chief towns are Renk, Tawfîḳîyah, and Sôbât. Area 36,200 sq. m.

6. **Baḥr al-Ghazâl.** Capital **Wâw.** Its other chief towns are Mashra' ar-Rîk, Dêm Zubêr, Shak Shak, Tông, Awrumbîk, or Urumbîk (Rumbek) and Shâmbî. Area 114,100 sq. m.

7. **Kordôfân.** Capital **Al-Obêḍ** (Al-Ubayyaḍ). Its other chief towns are Bâra, Dûwêm, Khûrshî, Nahûd, Ṭayyâra, Tandik, and Dillin. Area 113,700 sq. m.

8. **Kassala.** Capital **Kassala.** Its other chief towns are Ḳadâraf and Ḳallâbât. Area 44,900 sq. m.

Second Class.

1. **Ḥalfah.** Capital **Ḥalfah.** Its other chief towns are Kôshah and Dulgo. Area 112,300 sq. m.

2. **Blue Nile.** Capital **Wad Madani.** The chief towns are Abû Dulêḳ, Kâmlîn, Rufu'ah, Masallamîyah, and Manâgîl. Area 12,000 sq. m.

3. **White Nile.** Capital **Dûwêm.** Its other chief towns are Ḳaṭênah, Kawah, Gadîd, etc. Area 13,300 sq. m.

4. **Mongalla.** Capital **Mongalla.** This province was formed of the portion of the old Upper Nile Province which lies south of north latitude 7° 30′. It was created on January 1st, 1906. Area 63,800 sq. m.

5. **Red Sea Province.** Capital **Sawâkin.** Chief towns, Ṭôkar and Port Sûdân. Area 27,200 sq. m.

6. **Dâr Fûr,** formerly the kingdom of 'Alî Dînâr. Capital **Al-Fâshar.** Area 153,300 sq. m.

7. **Nûba Mountains.** Area 32,200 sq. m.

8. **Sobat-Pibor.** Area 24,400 sq. m.

The **population of the Sûdân** before the Dervish rule was estimated at 8,525,000, but in 1917 it was thought to be rather more than 3,400,000.

Of the total population of 1,853,000 persons in 1909, 2,787 were Europeans, and 8,209 Abyssinians, Indians, Egyptians, etc.

The **natives of the Sûdân** may be roughly divided into—
1. **Tribes of Hamitic descent.**—These are represented by the dwellers in the Eastern Desert, *e.g.*, the Bishârîn, the Hadanduwas, the Ḥalangas, 'Abâbdah, Ummar'ar, Bani 'Âmar, "Anaks," etc. 2. **Tribes of the Nûbas**, or **Barâbarâ.**—These live between the First and Fourth Cataracts, and have very dark, or black, skins, but are not Negroes; they are akin to certain tribes in the Nûba Mountains, in the Southern Sûdân. Like the tribes of the Eastern Desert, they have intermarried freely with Arabs, Turks, and Negroes. Their principal divisions are Danâḳalah, Maḥass, men of Sukkît, men of Ḥalfah, and the Kanûz. 3. **Arabs**, namely, the Shaiḳîyah, Munâsîr, Rubâtâb, Miragât, Ga'alîn, Fûng, Ḥamag, Shukrîyah, Ḥumrân, Kababîsh, the Baḳḳârah, or cattle-owning tribes, etc. 4. Pure **Black Tribes**, *e.g.*, the Shilluk, Dinka, Nuwwer, Bârî, Mâdî, Shulla, Latûka, Makârak, Gankî, Bankû (Bongs), Ḳûlû, Gûr, Agâr, Niam-Niam, the Farâtît tribes, etc.

5. **Negroid Tribes.**—The Fûrs, Birkad, Dâgô, Bartî, Mêdûb, etc. The Negro and Negroid tribes have in all ages produced slaves, and the Arab and Hamitic tribes have usually supplied the merchants who trafficked in them. From time immemorial natives of the Arabian Peninsula have entered the Sûdân in the east, and settled down in fertile places as opportunity offered. After A.D. 640 large numbers of Arabs entered the Sûdân *viâ* Aswân, and Arab immigrants were many after the conquest of Egypt by Salîm in 1517.

Religion.—The greater number of the inhabitants of the Sûdân are Muḥammadans. The religion of Muḥammad came into the Sûdân from Egypt by way of Nubia, from Arabia by way of Sawâkin and Maṣawa‘, and from North Africa by way of the desert road from Tunis to Dâr Fûr and Kordôfân. The Negro tribes are heathen, and in some places worship many strange objects. Among these belief in witchcraft and fetishes is universal. The Christian Missions now working in the Sûdân are: the Austrian Roman Catholic Mission, the Church Missionary Society, the American Mission to the Shilluk, and the Sûdân United Mission to the Dinkas. Very few converts are made, and the great obstacle to the spread of Christianity in the Sûdân is the insistence on monogamy by the missionaries.

Language.—The commonest language in the Sûdân is Arabic. The Barâbarâ who live between the First and Fourth Cataracts speak a language to which the name Nubian has been given; four or five dialects of it are now distinguished. The tribes of the Eastern Desert speak a language which Almkvist calls "Tu Bedâwîya," and it probably belongs to the old Hamitic group. The Negro tribes have a number of dialects peculiar to themselves. In ancient Egyptian times hieroglyphics were used in Nubia, and inscriptions in Egyptian were written in them. After the introduction of Christianity into Nubia as the official religion, Greek was used, and all the service books were in Greek. The language of the Meroïtic Inscriptions is thought to be Hamitic.

Revenue.—The revenue of the Sûdân is derived from **taxes** on land, date-trees, boats, animals, houses, and roads; from **royalties** on gum, ivory, feathers, and india-rubber; from **tribute** from nomad tribes; from **sales** of Government land, salt, etc.; from **Customs** dues, ferries, licences, court and market fees, fines, rent, **stamps and telegrams**, and transport (steamers and railways); and from an annual **contribu-**

tion by the Egyptian Government (£E.163,000 in 1912). The land tax is paid in money or in kind; when paid in kind it is called "Ushur," *i.e.*, "tenth," one-tenth of the crop being taken by the authorities. The **land tax** in 1913 amounted to £E.167,508. The **Customs** duties are: (1) an *ad valorem* duty of 8 per cent. on all imports; (2) an *ad valorem* duty of 1 per cent. on all exports.

The **revenue of the Sûdân** was in 1913 about £E.1,168,000, and the **expenditure** £E.1,568,352. The following figures illustrate the growth of the revenue since the re-occupation of the Sûdân in 1898:—

	£E.		£E.
1898 ...	... 35,000	1915 ...	... 1,495,230
1904 ...	... 576,000	1916 ...	... 1,857,860
1907 ...	... 976,000	1917 ...	... 2,195,360
1911 ...	... 1,236,446	1918 ...	... 2,774,690
1914 ...	... 1,543,550	1919 ...	... 2,992,793

The increase in **Trade** is illustrated by the following figures:—

Year.	Imports. £E.	Exports. £E.	Total. £E.
1912 ...	... 1,967,429	1,373,119	3,340,548
1913 ...	... 2,109,476	1,185,186	3,294,662
1914 ...	... 1,891,494	1,020,260	2,911,754
1915 ...	... 1,704,250	1,577,991	3,282,241
1916 ...	... 2,661,468	2,288,403	4,949,871
1917 ...	... 3,102,117	3,490,565	6,592,682
1918 ...	... 4,024,582	3,923,771	7,948,353
1919 ...	... 4,805,745	2,740,759	7,546,504

Two new products of commercial value have been discovered, the oil seed *Senat* and the nut of the *Dûm Palm*; the latter is now worth £E.18 a ton. In 1916 about 74,051 **sheep and cattle** were exported. Some 78 tons of **ivory** were exported. The **sources of revenue in 1913** were: Land taxes £E.167,508, Date tax £E.16,380, Animal tax £E.81,599, Tribute £E.30,059, Royalties £E.89,897, Timber and firewood £E.31,273, Miscellaneous £E.94,412, Customs £E.186,837, Steamers £E.147,502, Post and Telegraphs £E.63,607, Railways £E.553,887, Agriculture £E.723, Legal Department £E.10,555, General Central Services £E.31,779, Other

Services £E.45,173, Veterinary Department £E.9,255; **Total £E.568,352. Area of land cultivated** = 2,700,000 faddâns. **Slavery:** the professional slave dealers and raiders, finding that their trade becomes more dangerous every year, and that the Government are serious in their intention to destroy the business, are gradually abandoning it. To transport slaves is now a very risky and difficult matter, and only the most devious routes can be used, for the British Inspector is ubiquitous. Moreover, the natives are beginning to realize that the slave traffic is punishable by law. Domestic slavery must necessarily linger on for some years, but the natives will soon find that paid servants are cheaper than slaves, and then it will die a natural death. The slavery department needs more inspectors, especially near the Abyssinian frontier.

Education.—In 1916 there were 56 Elementary Schools in the Sûdân, with 4,375 pupils; eight Primary Schools, two Training Colleges, with 102 pupils; and the Upper School (Gordon College), with 60 pupils.

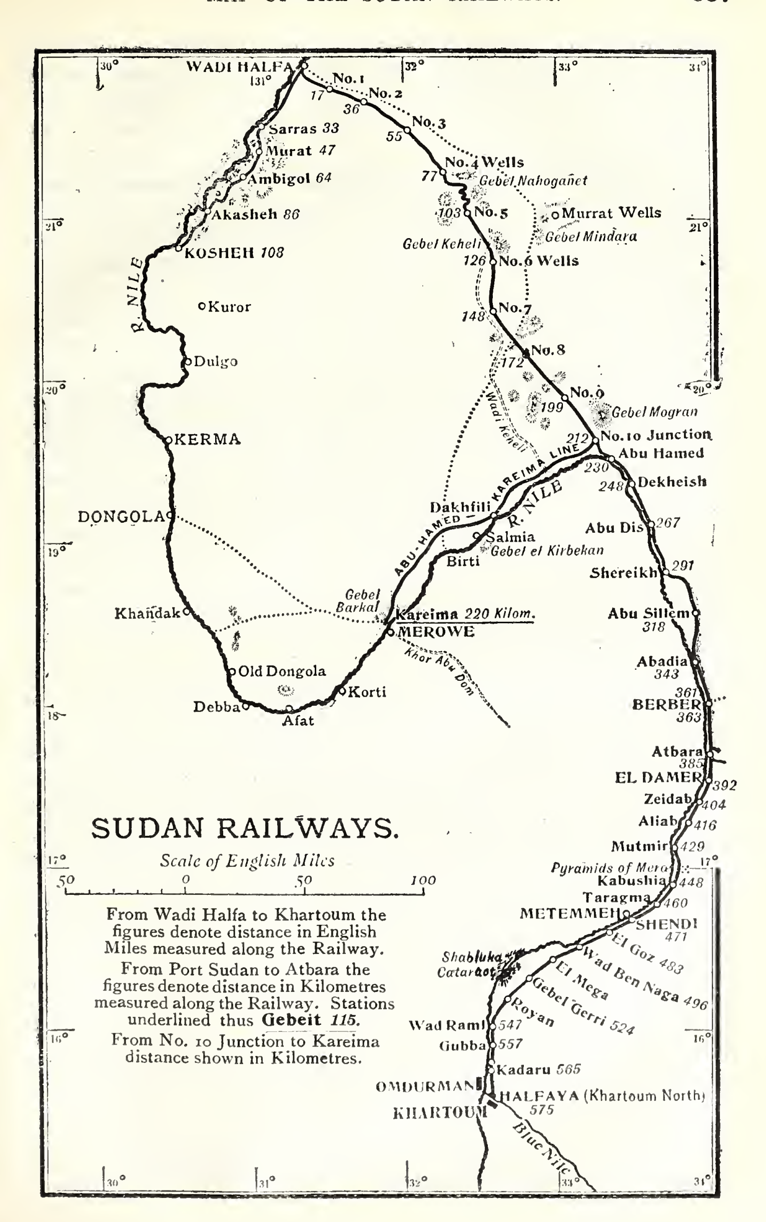
Justice.—The greatest care is taken by officials in the Sûdân that the law shall be administered without fear and without favour, and the method of procedure in a matter of criminal inquiry and as to arrest is borrowed from the Indian Code of Criminal Procedure; that at the hearing is that of an Egyptian (or, substantially, of a British) court-martial. Magistrates and judges have two classes of people to deal with, the negro and the Arab. As an illustration of the caution with which the principles of European criminal justice have to be applied Mr. Bonham-Carter quoted the following case. It appears that a man called Kwat Wad Awaibung was tried on the charge of murdering Ajak Wad Deng, and having pleaded guilty he added: "The murdered Ajak Wad Deng owed me "a sheep, but would not pay me. He said he would show "me his work, and next day my son was eaten by a crocodile, "which was, of course, the work of Ajak Wad Deng, and for "that reason I killed him. We had had a feud for years as I "was a more successful hippopotamus hunter than he was, and "for that reason he was practising witchery over me and my "family."

Irrigation and Cotton Growing.—Experiments have proved that Sûdân cotton is of a very fine quality, and the Government want to grow it largely. In 1913-14 the British Government lent the Sûdân £3,000,000 for cotton growing. In 1921 the British Government lent £6,000,000 to assist the irrigation

schemes which had been decided upon, but this sum was found to be insufficient, and the work had to be stopped for want of funds. Sir Lee Stack, Governor-General, visited England to discuss the matter with the British Government in May.

4.—Wâdî Ḥalfah to Kharṭûm.

The traveller wishing to visit Kharṭûm from Wâdî Ḥalfah may do so by two routes: (1) He may either travel thither direct by the Wâdî Ḥalfah–Kharṭûm Railway, or (2) he may ride to Karmah through the Baṭn al-Ḥagar, and proceed by steamer from Karmah to Kasingar at the foot of the Fourth Cataract, by horse or camel or train to Abû Ḥamad, and thence to Kharṭûm by the main line. The distance by the former route is about 575 miles, and by the latter about 950 miles. A glance at the map will show how much time and distance are saved by the Sûdân Railway, which, in going direct to Abû Ḥamad, cuts off the great bend of the Nile between Korosko and Abû Ḥamad; on the other hand, the traveller who goes direct to Kharṭûm from Wâdî Ḥalfah will see nothing of the temples and other remains which still stand in certain parts of the Cataracts, and the Pyramids at Kurru, Zûma, Gabal Barkal, Nûri, etc. Every traveller who can spare the time should take the opportunity of visiting Gabal Barkal and the remains of the temples of Piānkhi, Senka-Åmen-seken, and Tirhâḳâh, and the Pyramids of Gabal Barkal and Nûri. The ruins of the Christian monastery in the Wâdî al-Ghazâl are worth a visit. It is now easy to visit Old Donḳola, and the Island of Arḳô, where there are statues, and the famous quarries on the Island of Tombos. The river scenery between Marawî and Dabbah is lovely, and there is much to interest the traveller who cares for the Sûdân in the now thriving Province of Donḳola. The cost in time and money of paying a visit to the site of Napata, the ancient capital of the Northern Sûdân, need not be great, and we may be sure that the authorities, through their able governor of the province, Colonel H. W. Jackson Pâshâ, will afford every reasonable facility. Until the opening of the Karêmah Railway it was not possible to visit the interesting bend in the river where Marawî lies, without considerable cost and trouble, but now all this is changed, and we may hope that tourists will be sufficiently numerous to induce the Government to continue the line to New Donḳola, and perhaps even to Karmah. The closing of the Ḥalfah–Karmah line



WADI HALFA
No. 1
No. 2
No. 3
No. 4 Wells
Gebel Nahoganet
No. 5
Murrat Wells
Gebel Mindara
Gebel Keheli
No. 6 Wells
No. 7
No. 8
No. 9
Gebel Mogran
No. 10 Junction
Abu Hamed
Dekheish
Abu Dis
Shereikh
Abu Sillem
Abadia
BERBER
Atbara
EL DAMER
Zeidab
Aliab
Mutmir
Pyramids of Meroe
Kabushia
Taragma
METEMMEH
SHENDI
El Goz 483
Wad Ben Naga 496
El Mega
Gebel Gerri 524
Royan
Wad Ramla
Gubba
Kadaru 565
OMDURMAN
HALFAYA (Khartoum North)
KHARTOUM
Blue Nile
Shabluka Cataract
Sarras 33
Murat 47
Ambigol 64
Akasheh 86
KOSHEH 108
R. NILE
Kuror
Dulgo
KERMA
DONGOLA
Khandak
Old Dongola
Debba
Afat
Korti
MEROWE
Kareima 220 Kilom.
Gebel Barkal
Khor Abu Dom
Dakhfili
Salmia
Gebel el Kirbekan
Birti
ABU-HAMED KAREIMA LINE
Wadi Keheli
SUDAN RAILWAYS.
Scale of English Miles
From Wadi Halfa to Khartoum the figures denote distance in English Miles measured along the Railway.
From Port Sudan to Atbara the figures denote distance in Kilometres measured along the Railway. Stations underlined thus Gebeit 115.
From No. 10 Junction to Kareima distance shown in Kilometres.

will be deplored by all archæologists, for to all but people with much leisure and money it practically cuts off the possibility of visiting Gazîrat al-Malik, Samnah, Kummah, 'Amârah, Sâi, Suwârdah, Dôshah, Saddênga, Ṣulb, and other sites where ancient remains exist.

I.—Wâdî Ḥalfah to Abû Ḥamad by the Desert Railway, which is 232 miles long, was begun on May 15th, 1897, and reached Abû Ḥamad on October 31st of the same year; the average daily progress was about 1¼ miles, but 3¼ miles were made in one day early in October. The gauge is 3 feet 6 inches. The line was laid by Lieut. (now Sir P.) Girouard, R.E., Lieut. (now Col.) E. C. Midwinter, C.B., and other officers, during the summer, through an unmapped and waterless desert, and the work was so well done that trains carrying 200 tons of stores and supplies, drawn by engines weighing, without tender, 50 tons, could travel over it in safety at the rate of 25 miles per hour. The survey camp was always six miles in advance of railhead, the embankment party, 1,500 strong, followed at the average rate mentioned above, and the plate-laying party, 1,000 strong, came next. One section of the last party unloaded the sleepers, and another laid and spaced them, a third party adjusted them, a fourth party fixed and spiked the rails, and a fifth party levelled the line with levers. This done, the engine and train advanced, and so kept supplies of material at hand for the workers in front, whilst gangs of men behind straightened, levelled, graded, and ballasted the line. The camp moved forward about six miles every four days, and rations and water were supplied from Wâdî Ḥalfah. Every 20 miles a loop siding was made to allow trains to pass each other, and each station had a station master, two pointsmen, and a telephone clerk. Between Wâdî Ḥalfah and Abû Ḥamad the line rises about 1,200 feet. The stations are ten in number, and the various sections of the line may be thus described:—

Wâdî Ḥalfah to No. 1—17 miles, up-hill the whole way.
No. 1 to No. 2—19 miles, with short up-gradients.
,, 2 ,, 3—19 ,, ,, ,,
,, 3 ,, 4—22 ,, ,, ,,
,, 4 ,, 5—26 ,, 11 miles level, the rest steep and curved.
,, 5 ,, 6—23 ,, all down hill.
,, 6 ,, 7—22 ,, slight down gradient.
,, 7 ,, 8—24 ,, fairly level.
,, 8 ,, 9—27 ,, slight down gradient.
,, 9 ,, 10 (Junction)—13 miles, irregular, with curves.
,, 10 to Abû Ḥamad—18 miles.

At No. 4 station are three wells, two of which yield water from a depth of 90 feet, and a reservoir was made there; at No. 6 station are two wells, 84 feet deep, which join each other, and there is no reservoir. The water is pumped up by Worthington pumps. At other places in the desert small supplies of water were found, but they were too highly charged with mineral salts to be used in the engine boilers. From No. 6 a narrow-gauge (2 feet) railway runs to the gold mines in the Eastern Desert. Nos. 2, 4, 6, and 9 are coaling stations, but all coals had to be brought up from Alexandria. The sight of a locomotive, or "steamer on wheels," as the natives call it, hauling its tender, and water tanks, and a long row of trucks piled up with 400 tons dead weight of railway material across the desert at night, and breathing forth fire and smoke like a genuine 'Afrît in the Arabian Nights, impressed the imagination of the dwellers in the desert with the idea of Lord Kitchener's "magic" more than did the British soldier. When the first locomotive reached Berber, many of the natives hastened to touch its oily and dusty tender, believing it to possess magical powers, and some of them declared that the touch had cured their ailments! There are no antiquities in the desert between Wâdî Ḥalfah and Abû Ḥamad.

II.—Wâdî Ḥalfah to Abû Ḥamad viâ Karmah and Marawî.

The Wâdî-Ḥalfah—Karmah Line (gauge 3 feet 6 inches) was begun in 1877 by the Khedive Ismâ'îl, who had the rails laid as far as Sarras, a distance of 33 miles, and it was continued by the British to Akâshah, 55 miles further south, in 1884. In 1896, when the reconquest of the Sûdân was ordered by the British Government, Lord Kitchener determined to carry the line on to Karmah, at the head of the Third Cataract, a distance of 201 miles. It was found that the original piece of line had been badly laid; that the Dervishes had torn up 55 miles of it, and burnt the sleepers and twisted the rails; that only two engines were capable of moving; and that practically an entirely new line from Wâdî Ḥalfah to Karmah would have to be built. This wonderful work was done in 13 months by a few young Royal Engineer officers under Lieut. (now Sir Percy) Girouard, R.E. On March 21st the Sirdar ordered the advance; by June 4th the line was working to Ambuḳôl Wells, 68 miles from Wâdî Ḥalfah; on August 4th it reached Kôshah, 108 miles from Wâdî Ḥalfah; and on May 4th it reached Karmah, 201 miles from Wâdî Ḥalfah. Of the 13 months occupied in its construction, five had been almost wasted for want of engines and material, and in repairing the damage caused by rain storms, and meanwhile, at intervals, the Sirdar, Lord Kitchener, fought and defeated the

Dervishes at Farkat (June 7th) and elsewhere, and reconquered the Donkola province. The working expenses of the Karmah line were in 1903 £E.18,000, and the receipts were only £E.11,000, of which over £E.5,000 were on account of the Government. As the line had been lightly laid, and any idea of rebuilding it was out of the question, owing to lack of funds, the Government decided to close the line to general traffic in 1904. The portion of it from Kôshah to Karmah (95 miles) had been laid by the British with new rails, and it was further decided to take these up and send them over to the Atbarâ, for use in the construction of the Nile-Red Sea Railway. This was accordingly done, and now the section from Ḥalfah to Kôshah is only used for administrative purposes.

After a few miles the train enters a very rocky gorge in the mountains on the east bank of the Nile, at the foot of the **Second Cataract.** Every here and there glimpses are caught of little patches of cultivated ground on the banks of the river, and (in European eyes) of the miserable huts in which the natives live. At mile 7 the famous rock of **Abûṣîr** is passed; at mile 8 is **Abkah,** or Amkah, which was the advanced post of the Dervishes in 1886. At mile 11 are the famous old XIIth dynasty fortresses built by Usertsen III, the conqueror of the Sûdân, Mirgissi on the one bank and the fortress of Matûka on an island in the river. A little to the south a large town was situated in ancient days. A few miles further on is **Gamai,** which was a Dervish base at that time. At mile 33 is **Sarras,** from which place the Dervishes raided the country round; it was taken and re-occupied by the Egyptian troops at the end of August, 1889, shortly after the crushing defeat of the Dervishes under Wâd* an-Nagûmî at Tushkeh (Toski) on August 1st. On the west bank, opposite Sarras, are the remains of a fortress of the XIIth dynasty. At mile 40 is the **Samnah Road** station, close to the Island of **Gazîrat al-Malik,** where are remains of an ancient Egyptian fortress that dates from the time of the XIIth dynasty. Here, in 1905, Mr. J. W. Crowfoot and myself excavated a small temple on the top of the hill, and obtained the stele of Usertsen III, and other antiquities which are now in the museum at Kharṭûm.

At mile 43 is the **Cataract of Samnah;** here the river is about 430 yards wide. On the top of the west bank is an Egyptian fortress of the XIIth dynasty, and on the top of the east bank (400 feet high) is an Egyptian fortress of the same date. The fortress on the west bank is called **Samnah,** and that on the east bank **Kummaḥ.** Here

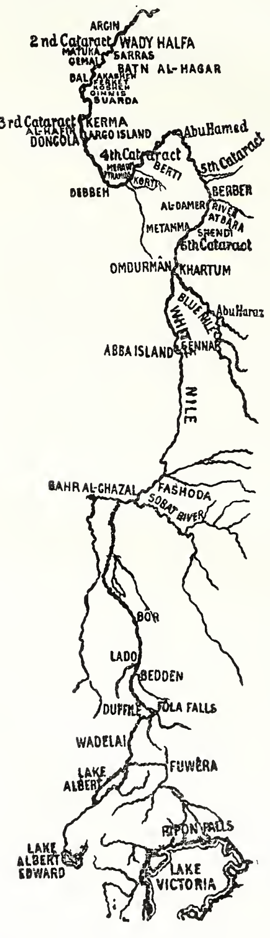
* Wâd = Walad, *i.e.*, "son of."

were found inscriptions dated in the eighth and sixteenth years of the reign of Usertsen III, who conquered Nubia as far south as this point, and made stringent laws to regulate the entry of the Nubians into the territory newly acquired by Egypt; it seems that only traders and merchants were allowed to bring their boats north of Samnah. Of special interest also are the series of short inscriptions which mark the levels of the waters of the Nile during the inundations in a number of years of the reign of Ȧmenemḥat III, to whom tradition assigns the construction of Lake Moeris. These inscriptions seem to show that at that time the river level during the inundation was about 26 feet higher than it is at the present time, and they seem to indicate that Ȧmenemḥat III set to work in a systematic manner to endeavour to understand the effects upon the agriculture of Egypt caused by inundations of varying heights. The **ruins at Samnah and Kummah** are of considerable interest from many points of view, and especially because they represent buildings which were primarily fortresses of great strength. The two buildings, that of Samnah on the left bank and that of Kummah on the east bank of the Nile, occupy positions of extreme strategical importance, and when well garrisoned must have formed a formidable obstacle to the progress north of the raiding river tribes. Inside the fortifications at Samnah are the ruins of a temple which was founded by Usertsen III, and restored by Thothmes III and Amenophis III; it consisted of a single chamber measuring about 30 feet by 12 feet, with an extremely plain front. In 1905 Mr. J. W. Crowfoot and myself discovered here and excavated a temple which Tirhâḳâh built in honour of Usertsen III, the first conqueror of Nubia. The inscribed rectangular altar was *in situ*. Inside the fortifications at Kummah are the ruins of a larger temple which date from the period of Thothmes II and Thothmes III.

The traveller now finds himself journeying through the mountainous district called the Baṭn al-Ḥagar, *i.e.*, the "Stone Belly," and a more terrible desert it would be difficult to find; blackened rocks and bright yellow sand meet the eye in every direction, and the heat and glare in the afternoon even in the winter months are very fierce.

After passing the Atiri, Ambuḳôl, and Tangûr Rapids, and the hot sulphur spring at **Uḳma**, the village of **'Ukâshah** is reached at mile 85. Here the railway touches the river. At **'Ukâshah** (Akasha) (mile 88), an action was fought

between 240 of the Egyptian Cavalry and the Dervishes, on May 1st, 1896; the Egyptians routed the Dervish force of 1,300 men, 300 of whom were mounted, and killed 18 and wounded 80. At mile 98 is **Dâl** Cataract, where the fall is about 5 feet; Gabal Dâl on the east is 1,973 feet high. On an island in the Cataract is a Turkish fortress. At **Farkat**, 107 miles from Wâdî Ḥalfah, a famous battle was fought on June 7th, 1896. The Sirdar (Lord Kitchener) attacked the Dervishes at 5 a.m., killed and wounded about 1,000 of them, including 40 amîrs, or chiefs, and took 500 prisoners, his own loss being 20 killed and 80 wounded; the battle was over in two hours. The **Second Cataract begins** at Farkat. At **Kôshah** (mile 113), died Captain Fenwick and Surgeon-Captain Trask, in July, 1896. At **Ginnis** (mile 115), the Dervishes were defeated on December 30th, 1885. On the **Island of Sâî**, about 130 miles from Wâdî Ḥalfah, are the remains of a small temple with inscriptions of Thothmes III and Amenophis II, and a number of grey granite pillars from a Coptic church, on which are cut the Coptic cross. Opposite to the north end of the island, on the east bank, are the ruins of the **Temple of Amârah.** The foundations are of brick, but the columns, eight in number, are of sandstone, and are 3½ feet in diameter. The temple measured about 54 feet by 30 feet, and the doorway, which had a column on each side, was 19 feet wide. It was built by an Ethiopian queen whose pyramid-tomb is at Meroë, on the top of the hill behind Bagrawîr. Portions of the pillars of this temple were standing in 1905, when I visited the site for the second time, but I am informed



by Mr. Green that no trace of them is now to be found. It is clear that in this case, as in many other cases, the natives have destroyed the remains for the sake of the stone which they contained.

Near Kuêka (mile 135), on the east bank, is the famous **Ḳubbat Idrîs,** or Tomb of Shêkh Idrîs, a distinguished follower of the great Shêkh Morghânî, who flourished in the early years of the XIXth century. This tomb is visited by thousands of people from all parts of the Sûdân, and women come there to pray for children. The Ḳubbah is a solid structure of stone and mud bricks from 70 to 80 feet high, and it stands in a most picturesque situation near the river. The dome and stages of the building are its most characteristic features. The canopy which covered the Shêkh's grave was carried off by the Dervishes. At mile 142 is **Saddênga,** where there are the ruins of a temple built by Amenophis III in honour of his queen Ti, and a broken statue. Here at a place called Nulwa, a little to the south of the Egyptian temple, Somers Clarke found the ruins of a Coptic church, 12 metres long, with a stairway at the south-west angle. A little to the north, on the east bank of the Nile, is **Suwârdah,** which became the Sirdar's advanced outpost after the Battle of Farkat. Close to Saddênga is the imposing **Ḳubbat Salîm,** or Tomb of Salîm, another follower of Shêkh Morghânî and an exponent of his doctrines. From Ḳubbat Idrîs and Saddênga Mr. J. W. Crowfoot and myself brought a number of antiquities which are now in the museum at Kharṭûm. Six miles to the south of Saddênga is **Gabal Dûsh** (Dôshah), a mass of sandstone in which was hewn a tomb in the reign of Thothmes III; the spot is extremely picturesque. One mile further south is **Ṣûlb,** or **Soleb,** near which are the remains of a large and magnificent temple which was built by Amenophis III; they are the best preserved ruins of a temple, and undoubtedly the most interesting of all the ancient Egyptian remains south of Samnah. The Egyptian name of the city of Ṣûlb was Menen-en-khā-em-maāt, [hieroglyphs], and the temple was built there to commemorate the king's victories over the Nubians, many of the names of the tribes of which are found inscribed on its walls. The temple was approached through two pylons. The court between the two pylons measured about 70 feet by 45 feet, and contained six columns; the second pylon, 167 feet

wide, was approached by steps. The second court measured about 90 feet by 113 feet, and a colonnade ran round all four sides; the columns, 28 in number, are 6½ feet in diameter. The sanctuary was approached through two hypostyle halls, the second of which measured 78 feet by 113 feet, and contained 32 columns 5¾ feet in diameter. Mr. J. W. Crowfoot and myself made excavations in front of the main doorway of this temple in 1905, and the altars, etc., which were found there are now in the museum at Kharṭûm.

Almost opposite the railway "triangle" at **Dulgo,** about 191 miles from Wâdî Ḥalfah, on the west bank of the Nile, lie the ruins of the Temple of **Sesebi,** which bear inscriptions of Seti I, about 1370 B.C. At mile 203 is the **Kaibar** (or Kagbar) **Cataract,** and at mile 231 the village of **Hannek** is passed. The village of **Abû Fâṭma** marks the boundary between the Provinces of Ḥalfah and Donḳola. On the **Island of Tombos,** near Karmah, and on the banks of the river, at the head of the **Third Cataract,** 201 miles from Wâdî Ḥalfah, are grey granite quarries, in one of which the two statues, now lying on the Island of Arḳô, were quarried; nearly 100 years ago Mr. Hoskins saw lying here a broken statue of the same material 12 feet long. **Karmah,** at mile 246, was the terminus of the railway. **Al-Ḥafîr,** about two miles to the south of Karmah, on the left bank of the river, is famous in Anglo-Egyptian annals as the scene of the action between the Egyptian artillery and gun-boats and the Dervishes on September 20th, 1896. The Dervishes had made along the river a long line of shelter trenches, with loopholed mud walls, and they had five small guns, which were well worked by ex-gunners of the Egyptian army. The Sirdar's gunboats, *Tamaai*, *Abu Klea*, and *Metammeh*, attacked the forts; the Egyptian artillery kept up a strong fire, but it was the fire from three batteries of artillery and a Maxim battery, which were landed on the Island of Artaghasi, that silenced the Dervish guns. On the **Island of Arḳô** (the north end is 252 miles from Ḥalfah), which is about 20 miles long, are two grey granite statues, which, together with the pedestals, must have stood about 24 feet high; they seem not to have been finished. One is broken, and the other has lost part of an arm. Lepsius assigned the statues to the Hyksos period. From their positions it appears that they were set up in front of the temple, the ruins of which lie close by, after the manner of the colossal statues of

kings that were placed before the pylons of temples in Egypt. The temple which stood on this island must have been of considerable size. On the right bank of the Nile, near Arḳo, at **Ḳarmân**, are the ruins of a very large town, and in the necropolis are the remains of two rectangular mud-brick tombs which in Lepsius' day measured 150 feet by 66 feet by 40 feet, and 132 feet by 66 feet by 40 feet respectively; they are called **Dafûfah** and **Ḳarmân.**

In the years 1913–15 Dr. Reisner carried out extensive excavations near Kermah (Karmah). He discovered fragments of inscribed alabaster bearing the names of Nefer-Ka-Rā Pepi I, Åmenemḥat I, and Usertsen I, which proved that the site had been occupied from the VIth to the XIIth dynasties. The great mass of mud brick called "The Dafûfah" was examined, and on the east side of it was a series of rooms containing pots and pans, mud sealings, and a lot of miscellaneous objects, all showing clearly that the rooms had been destroyed by fire. Round about the Dafûfah were heaps of ashes and slag, unfinished pottery, etc. The mud-seal impressions proved that the settlement had once been a great trading centre, probably from time immemorial. After the "Plain of Potsherds" had been examined and the masses of pottery of the Hyksos period with which it was covered, the excavators turned their attention to the ground on the north of the Dafûfah, and there they found a Hyksos cemetery, and to the west of the Western Dafûfah, and there in a small area they found fragments of hundreds of stone vessels that had been made under the Ancient Empire. One class of grave at the Dafûfah is of special interest, for it shows that the old, well-known African custom of funerary sacrifice was observed there. "In a carved bed in the middle of a big circular pit, the chief "personage lies on his right side with his head east. Under his head "is a wooden pillow; between his legs a sword or dagger; beside "his feet cowhide sandals and an ostrich feather fan. At his feet is "buried a ram, often with ivory knobs on the tips of the horns to "prevent goring. Around the bed lie a varying number of bodies, "male and female, all contracted on the right side, head east. "Among them are the pots and pans, the cosmetic jars, the stools and "other objects. Over the whole burial is spread a great ox-hide. "The men and women round about must have been sacrificed so that "their spirits might accompany the Chief to the other world. None "of them, so far as I could observe, bore any marks of violence. "Several had their fingers twisted into their hair or had covered their "faces with their hands. One woman had struggled over on her "back and was clutching her throat. But most of them lay composed "as if minded to die quickly, according to the custom of their fathers. "I could not escape the belief that they had been buried alive." (See Bulletin, Boston, April, 1914, p. 9.) The bodies that lay on the funerary beds were Egyptians, and the bodies that lay about them were the Nubians who were the human sacrifices when they were buried. Human sacrifices were made at the burials of great chiefs and kings at all periods in Egypt, and the custom still survives in

the Sûdân*. But besides the Hyksos Cemetery, the American excavators found the remains of an older cemetery containing the graves of the Egyptian officials who administered the Sûdân under the XIIth dynasty. Among these was the tomb of Hep-tchefa, Governor of the Sûdân under Usertsen I, he died in the Sûdân and was buried there, and so his well-known tomb at Asyûṭ was never occupied.

"The grave tumuli of the Egyptian governors were of a new "type unknown in Egypt. Imagine a circle 80 to 90 metres in "diameter, laid out on the hard desert surface, outlined by a wall of "mud-brick only 10 centimetres high, and crossed from east to "west by two long mud-brick walls forming a corridor two or three "metres wide. From the outside of this corridor, cross walls of "mud-brick, built at intervals of one or two metres, ran out to the "circumference Beginning with a height of 10 centimetres at "the circumference, the walls all rise in a curve to the height of two "or three metres in the middle. All the spaces in the circle, except "the corridor, were filled in with loose earth. Opening off the "middle of the southern side of the corridor was a chamber roofed "with a mud-brick vault. The tomb was thus ready for burial. "A great funerary feast was made at which over 1,000 oxen were "slaughtered, and their skulls buried around the northern half of the "circle outside. The body of the Prince was then laid to rest in "the vaulted chamber with his offerings, and the wooden door was "closed. The sacrificial victims, all local Nubians, either stupefied "during the feast by a drug or strangled, were brought in and laid "out on the floor of the corridor—from two to three hundred men, "women, and children. With these Nubians were placed a few "pots and pans, occasionally a sword, and often their personal "ornaments. The corridor was filled in with earth, forming "a low domed mound. The top was covered with a floor of mud-"brick. A great quartzite pyramidion was set up on top; and "I believe that a mud-brick chapel was built around the stone. "The statues found cast down in the holes excavated by plunderers "had apparently stood in the chapel. Later, when the edges "of the mound became covered with drift-sand, the surface of the "pavement softened in the sun, the mound was outlined with a band "of dark stone chips and the top sprinkled with white pebbles. "Almost immediately after the burial of the Prince, the mound "began to be used as a cemetery, apparently for his relatives and "adherents." (Bulletin, Boston, December, 1915, p. 71.)

An examination of the so-called "Fort" revealed a stairway that leads up from the west to a small room 30 feet above the plain. Northwards from the N.E. corner of this room runs another stairway 20 feet long, and then turns west to the top of the building. The stairway and the room were filled with coals and ashes, which suggests that they were destroyed by fire.

Al-Urdî, or **New Donḳola,** a little over 280 miles from Ḥalfah, on the west bank of the Nile, was re-occupied by Egyptian troops on September 23rd, 1896. In the Western

* I have collected a number of proofs of this fact in my *Osiris and the Egyptian Resurrection*, London, 1911, Vol. I, p. 197.

Desert, at no great distance from the town, are large quantities of salt deposit. During the revolt of the Mahdî this town, under the rule of Mustafa Yawar, who doubted the divinity of the Mahdî, remained loyal for a long time, and its people actually defeated the Dervishes at Ḳûrta (Kôrtî); finally, however, it was compelled to submit to the rebel, and the loss of the Donḳola Province was a serious blow to Egypt. The town was large and prosperous, but, like every place which fell under Dervish rule, was destroyed. The old town lay 2 miles south of the modern town. Seven miles to the south are the ruins of a small Egyptian temple, which was discovered and partially excavated by Colonel the Hon. J. Colborne in 1885. At mile 291 is Lebab Island, where the Mahdî was born. **Khandaḳ** marks the site of an ancient Egyptian town, and the ruins of several churches prove that there was a flourishing Christian community here in the Coptic period. Christian remains are also found at Firgi, Khalêwa, Amentogo, Arab Hag, to the south of Khandaḳ. At Arab Hag an obelisk inscribed with the name of Piānkhi was found.

Old Donḳola is situated on the east bank of the Nile, and is 351 miles from Ḥalfah. At the present time it is simply a deserted town, filled with the ruins of mud-brick houses, and containing about 30 able-bodied men. The people belonging to it usually live on a little island in the Nile close by, and on the western bank. It is built on a rocky height overlooking the river and the Eastern Desert, and has always been of great strategic importance, from its commanding position. The current is very strong here, and the steamer in which the writer passed it in September, 1897, with difficulty made one mile in an hour. At the end of the first half of the sixth century A.D. the Christian king Silko, who defeated the Blemmyes, adopted the town as his capital. Abu Ṣalîḥ describes it as a large city, and says that it "contains "many churches, and large houses, and wide streets. The "king's house is lofty, with several domes of red brick, and "resembles the buildings in Al-'Irâḳ; and this novelty was "introduced by Raphael, who was king of Nubia, A.H. 392, "*i.e.*, A.D. 1002." The Nubians are said to have been star-worshippers, and the first who was converted to Christianity was Baḥriyâ, the son of the king's sister, who built many churches and monasteries in Nubia, some on the river banks, and some in the desert. The northern frontier of Nubia was at Aswân, which was said to be distant a journey of 40 days, and was called Marîs, a name derived from two ancient

Egyptian words meaning the "south land." The south wind is commonly called "Marîsîyah," as belonging to the south. The king of Nubia had dominion over Mâḳurrah and 'Alwah. The Mosque at Old Donḳola was dedicated to the service of God A.D. 1317; it stands in a prominent place, and commands the country and the river.

According to Mr. J. W. Crowfoot the church at Old Donḳola is built in two storeys. The entrance is at the west end and leads through a door to a broad flight of steps. The steps bring the visitor into the upper storey of the church which was, and still is, used as a mosque. The upper storey consists of a square nave about seven metres across, with a flat roof resting on four pillars. There is a niche at the end of the nave, round which runs a gallery; the walls have been white-washed in recent years, but figures of Christian Saints are visible beneath it. The lower storey has a gallery running north to south the whole width of the church. This opens into five aisles, which open into another gallery in which is an apse.

Abû Ḳussî, 356 miles from Ḥalfah, is the starting point of the great Kordôfân and Dâr Fûr caravan road. **Al-Dabbah** (Debbeh), 371 miles from Ḥalfah, originally a small village, was turned into a fortified place by the Turks; at this point the Nile is 750 yards wide. Dabbah is the starting point of the direct caravan road to Omdurmân. **Ḳûrta** (Kôrtî), 416 miles from Ḥalfah, on the west bank of the river, was the headquarters of Lord Wolseley's expedition to rescue General Gordon in 1884; nearly all the forces were concentrated there on Christmas Day of that year, and the withdrawal from the place began in March, 1885. From this point on the Nile to Matammah is a distance of 176 miles. Water is first met with 37 miles from Kôrtî or Ambuḳôl, and 18 miles further on are the Wells of Al-Ḥuwêyât; 100 miles from Ambuḳôl are the Gakdûl Wells, which are situated in one of the spurs of the Gabal Gillîf range. The wells are water-worn basins at the bottom of a granite gorge, and the largest of the pools measures 180 feet by 30 feet; the water is sweet. At the distance of 150 miles from Ambuḳôl are the Wells of Abu Klea (Abû Ṭaliḥ), and 18 miles further on is the Well of Shabakat, which is 12 feet in diameter and 50 feet deep. At **Kurrû, Zuma** (east bank), and **Tanḳâsi** (west bank), 7 to 10 miles from Marawî, are the remains of large groups of pyramids, but the stone casings have been removed by many generations of Muḥammadans for building their tombs, and for making the foundations of the supports of their water-wheels. The cores of most of these pyramids

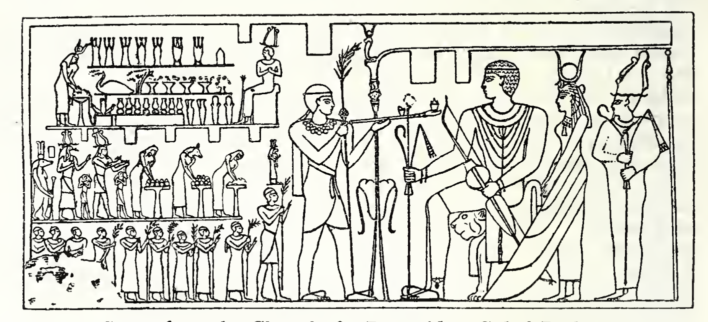
were built of mud bricks, but in each pyramid field are the ruins of at least one well-built step pyramid made of stone.

About seven miles down stream of Marawî is the so-called pyramid-field of Tankâsî, but the funerary monuments there are not pyramids, only mounds of earth which have been heaped up over tombs, and have had their bases protected with rows of stones. Nearly opposite Tankâsî, on the east bank, is the pyramid-field of Kurrû, where the Harvard-Boston Expedition carried out excavations in 1919. Here were found the pyramid-tombs of the great king Piānkhi, and of his successors Shabaka, Shabataka, and Tanut-Âmen. The tombs are of the "stairway-pyramid" type, the orientation is towards the west, or left bank, and the tombs of the kings are separated from those of the queens. The pyramids of the four kings stand on a sandstone plateau between two shallow valleys, and to the north and south of the valleys are the tombs of the queens. The oldest tomb on the site is a small grave of the tumulus type, of a private individual. Near this is a series of 15 tombs, each one larger and better built and better decorated than the one before, and these occupy the best places on the plateau. The sites of the pyramids of the four kings mentioned above are the poorest on the plateau, and it is clear that these were the last buildings set up in the cemetery. All this seems to show that the cemetery was very old, and that it had been in continuous use for some generations; and Reisner regards the small tumulus grave and the 15 pyramid tombs at Kurrû as "the tombs of the ancestors of Piānkhi." He thinks that the group represents six generations, and that Kashta was buried at Kurrû, and that his family was of Libyan origin. Whilst Shashanq (I), a descendant of the great Libyan Chief Buiuwawa, was making himself King of Egypt in the north, the Libyans in the south were invading the province of Donkola. One of them established himself at or near Napata, acquired considerable wealth and was buried at Kurrû. His descendants acquired greater wealth and power, and as their riches increased so did the size and splendour of their tombs and pyramids. One of these descendants called Kashta invaded Egypt and occupied the country as far north as Thebes, and thus a Libyan once again sat upon the throne of Âmen. Near the tombs of the royal ladies who were buried at Kurrû were discovered 24 graves of horses, which date from the reigns of Piānkhi, Shabaka, Shabataka, and Tutânkh-Âmen. Each horse was buried upright, with his head towards the south and he seemed to belong to a short, small breed, resembling the Arab. These horses were sacrificed when their masters were buried, so that the royal spirits might have the spirits of their favourite horses to ride in the Other World. When the present writer was excavating some graves on the east slope of the ridge on which the main group of pyramids stand at Meroë, in 1902 and 1905, a great many bones of horses were found, rib bones, broken skulls, and hoof bones. Many of these were examined by Col. Griffith, the Chief of the Veterinary Department of the Egyptian Army, and he asserted that they belonged to a type and breed of horse which no longer existed in the country. The tombs at Kurrû may be visited by the traveller and inspected at his ease,

but both permission and keys must be obtained from Jackson Pâshâ at Marawî. (See *Sudan Notes and Records*, Vol. ii, p. 254.)

The Pyramids of Zûma, nearly 40 in number, which lie a few miles to the south-west of the pyramid-field of Kurrû, are not pyramids in the true sense of the word. They are merely, as Mr. Crowfoot discovered several years ago, grave tumuli, around the bases of which are rows of stones.

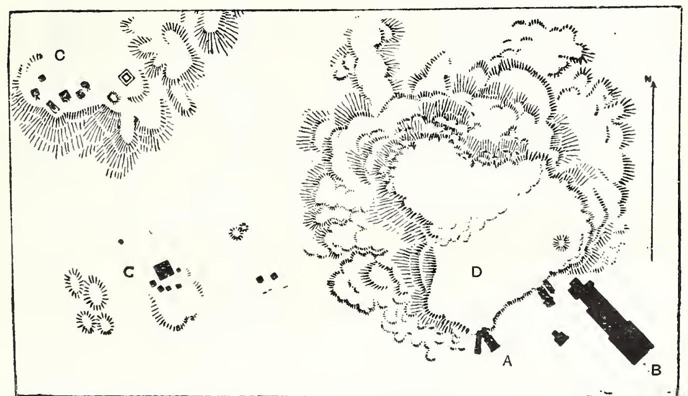
Marawî (east bank), and **Ṣanam Abu-Dôm** (west bank), 447 miles from Ḥalfah, mark the site of the ancient and famous city of **Napata**, the Nept, or Nepita, of the Egyptian inscriptions. The ancient city seems to have been situated on the west bank, over which, on account of the bend in the river, the sun rises.



Scene from the Chapel of a Pyramid at Gabal Barkal.

It must have been a city of very considerable size, for whenever any excavations were made for the purpose of building block-houses, etc., in 1897, when Ṣanam Abu-Dôm was the headquarters of the Frontier Field Force of the Egyptian Army, remains of buildings and portions of large sandstone columns were generally found at the depth of a few feet below the surface. Away in the low hills on the west bank, a few miles from the river, are the remains of a number of rock-hewn tombs, and on the east bank, about ten or eleven miles up-stream from Ṣanam Abu-Dôm, lie the pyramids and ruins of the temples of Napata. The name Ṣanam Abu-Dôm means "the place of the graven image of Abû Dôm" and proves that there were ancient ruins of one or more temples in the immediate neighbourhood. At Marawî, just opposite, are the ruins of one of the brick and stone forts which are so common in the country, and a mosque, and close by is a settlement of the brave

Shaiḳîyah Arabs, whose ancestors several centuries ago came from Arabia and possessed considerable power in the country. Next comes the village of Shibbah, and straight ahead is the striking mountain called **Gabal Barkal** by the Arabs, and Ṭu-āb, [hieroglyphs] the "**Holy** *(or* Pure) **Mountain**," in the Egyptian inscriptions. This mountain is 302 feet high, and is about five-eighths of a mile long; it is the most prominent object in the landscape, and can be seen for many miles round. On the plain by the side of the mountain are the ruins of eighteen or nineteen pyramids, and on the crest of the rising ground are eight more; they are, however, much dwarfed in



The Pyramids and Temples of Gabal Barkal. (Drawn from Lepsius.)
A. Temple of Tirhâḳâh. C. Pyramids.
B. Temple of Piānkhi. D. Gabal Barkal.

appearance by the huge mass of the mountain. The pyramids in the plain vary in size from 23 feet to 88 feet square; those on the hill vary from 33 feet to 65 feet square, and from 35 feet to 60 feet in height. Before each pyramid there stood a chapel containing one or more chambers, the walls inside being decorated with reliefs, in which the deceased was represented standing in adoration before the gods of the Holy Mountain, and receiving offerings of incense, etc., from priests and others.

An attempt to excavate the Pyramids of Gabal Barkal was made by the writer in 1897. A shaft was sunk with great difficulty (owing to the want of proper tools and labour) close to the eastern face of one of the pyramids. A chamber was

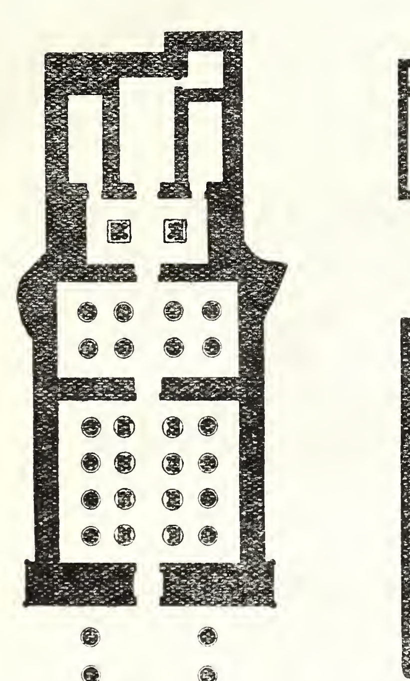
reached, which contained a broken wine jar with the label "Rhodian wine," on one of its fragments, and the bones of some animal that had been sacrificed. The remains of the jar showed that the tomb belonged to a late period, possibly post-Christian, and it was assumed that all the pyramids of the group were of the same date. The work was therefore abandoned. Twenty years later (1917) Dr. Reisner found that entrance to the buried chambers under the pyramids was to be obtained by means of a stairway on the eastern side of each pyramid. He cleared out the underground chambers of twenty-five pyramids, but they had all been plundered in ancient days, and all except one were empty of everything but fragments. In the tomb which formed the exception he found a "hinged bracelet of enamelled gold in perfect condition." The date he assigned to the pyramids was the first century B.C., *i.e.*, they were of Meroïtic rather than Ethiopian origin.

The principal temple buildings are:—

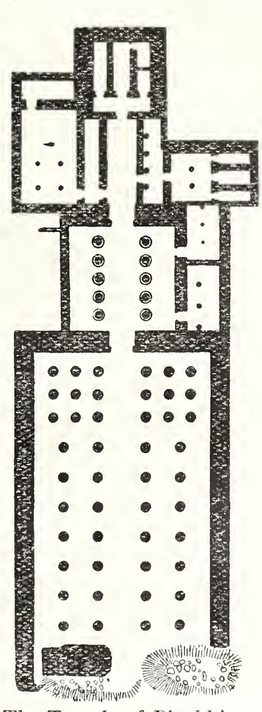
1. The **Temple of Tirhâḳâh.** Taharqa, the Tirhâḳâh of the Bible, was the third king of the XXVth dynasty; he began to reign about 693 B.C., and reigned over 25 years. From the excavations which Mr. Hoskins made at Gabal Barkal, it is clear that four pillars of a porch or portico stood before the pylon, which was 11 feet deep and 63 feet wide. The court, which measured about 59 feet by 50 feet, contained 16 columns, eight round and eight square; their diameter was about 3½ feet, and their height 18 feet. A small hypostyle hall with eight columns led into the sanctuary, wherein was the shrine of the god and his companions; on the west side of the sanctuary is one room, and on the east are two. The total length of the temple was about 120 feet. The chambers are decorated with reliefs, in which the king is depicted worshipping the gods of Gabal Barkal; many of the reliefs were painted with bright colours. Since Hoskins and Lepsius were at Gabal Barkal a huge mass of rock crashed down from the top of the mountain and did great damage to the ruins of this temple. Between the temples of Tirhâḳâh and Piānkhi are the ruins of a small temple building which consisted of two chambers, the first containing four columns, and the second an altar; about 250 yards to the north of these are the ruins of the pylon of a temple which was decorated with sculptured scenes.

2. The **Temple of Piānkhi**. Piānkhi ruled at Napata in the last quarter of the eighth century B.C., and is famous as the Nubian monarch who invaded and conquered all Egypt.

His temple, according to the figures of Mr. Hoskins, measured 500 feet in length and 135 feet in width. The first court, which contained 26 columns about 6 feet in diameter, measured 150 feet by 135 feet; the second court, which contained 46 columns about $5\frac{1}{2}$ feet in diameter, measured 125 feet by 102 feet; the hypostyle hall, which contained 10 columns



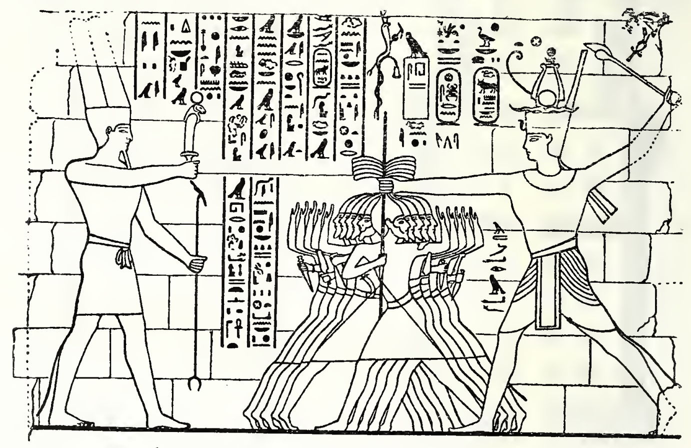
The Temple of Tirhâḳâh at Gabal Barkal. (Drawn from Lepsius.)



The Temple of Piānkhi at Gabal Barkal. (Drawn from Lepsius.)

about 4 feet in diameter, measured 51 feet by 56 feet; the chamber leading to the sanctuary measured 40 feet by 28 feet; and the sanctuary, which contained three shrines, probably for Åmen-Rā, Mut, and Khensu, 37 feet by $21\frac{1}{2}$ feet. The pylon which divided the two courts was decorated with battle scenes, processions, and the like. Close in under the hill are the remains of a temple which seems to have been built and added to by later Nubian kings, for the reliefs which were on its walls

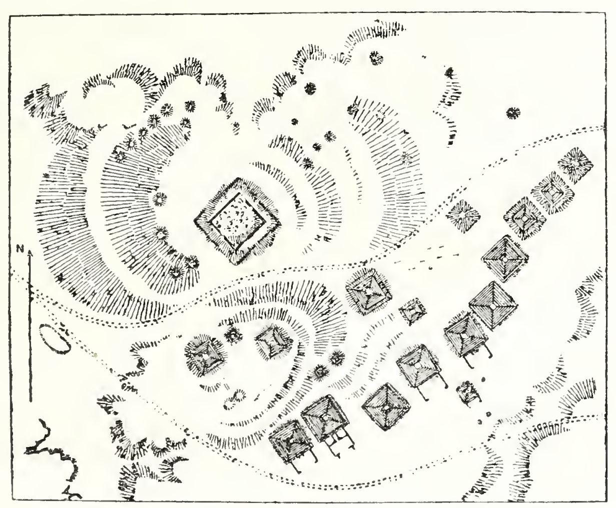
belong to the class which is found in the island of Meroë, further south. An idea of the style of the reliefs in this temple will be gained from the above illustration, which is taken from Cailliaud's *Voyage*. Here we see the Nubian king, who calls himself "the pacifier of the two lands, king of the South "and North, Se-kheper-ren-Rā, the son of the sun, the lord of "diadems, Senka-Åmen-seken, giver of life, like the sun." The prenomen of this king, Se-kheper-ren-Rā, means "Rā createth name" (*or* renown), and his nomen shows that he was a devotee of the god Åmen-Rā. He is here depicted in the act of clubbing the representatives of a number of vanquished peoples in the presence of the god Åmen, who is offering him



Senka-Åmen-seken, King of Nubia, clubbing his Foes.
(Drawn from Cailliaud.)

a short sword. An interesting collection of stelæ containing inscriptions of Piānkhi, Ḥeru-sa-åtef, Nastasen, and the texts of the histories of the Dream, and the Coronation, and the Punishment of Traitors, drawn up for certain Nubian kings, was found some years ago among the ruins of the great temple of Piānkhi at Gabal Barkal; all these are now in the museum in Cairo. There are ruins of several other Egyptian temples, and also of a few purely Meroïtic temples at Gabal Barkal, but there is little among them to interest the traveller who is not an architect or an Egyptologist. An account of the work done in connection with them by the Harvard–Boston Expedition has been written by Dr. Reisner, and will be found in the *Journal*

of Egyptian Arch., vol. iv, p. 213; vol. v, p. 99; vol. vi, p. 247. At **Nûri**, or Nurri, 7½ miles from Marawî, on the west bank of the Nile, are the remains of 35 pyramids, which probably formed the tombs of the kings and royal personages of Napata. These pyramids are better and more solidly built than any others which the writer has seen in the Sûdân, and in very few cases do their cores consist of anything besides well-hewn sandstone blocks laid in regular courses. Each pyramid had originally a chapel in front of its face on the south-east side, but every building of the kind has long since disappeared, and there is not an inscription or bas-relief visible by which any of them may be dated.



The Pyramids of Nûri at the foot of the Fourth Cataract.

As in the pyramid-field at Meroë and elsewhere in the Sûdân, the Pyramids of Nûri stand in a group on raised ground, which has the form of a crescent or rough horseshoe, with the opening facing the south. When the writer saw them in 1897 they were literally silted up with many hundreds, or thousands, of tons of sand, and as the Dervishes had laid waste the whole district, and killed the greater part of the population, no excavations on the site were possible. In 1916–19, thanks to the liberal equipment provided by Harvard-Boston Expedition, Dr. Reisner was able to attack the Pyramids of Nûri and with most

satisfactory results. The largest pyramid, about 165 feet square, stands on the eastern horn of the crescent, and there are several smaller pyramids about it; on the western horn are fourteen large pyramids and five small. Here the tomb of the Ethiopian king Aspelta had been found in 1916. In 1917, the excavation of the tomb of Tirhâkâh was accomplished, but with difficulty, on account of the cracked masonry, the heat of the chambers, and the water that covered the floors of them. Further excavations revealed the fact that Nûri was the great cemetery of the twenty kings of Ethiopia who reigned after Tanut-Åmen and thanks to the inscribed objects that have been found there, we now know their names, and probably the order of their succession, and are able to reconstruct the history of the later Ethiopian kingdom down to the first half of the third century, B.C.

The traveller now-a-days proceeds from Marawî to Abu Ḥamad by the **Abu Ḥamad—Karêmah Railway.** The line is laid on the flat desert behind the hills on the right or east bank of the Cataract. From Marawî it proceeds to **Dakhfili,** a large camping ground close to the river, opposite Shirri Island, about 70 miles from Marawî. This is the only place *en route* where the railway touches the river. Leaving Dakhfili we run direct to No. 10 Station on the Wadî Ḥalfah-Abu Ḥamad Railway, 18 miles from Abu Ḥamad. The line is about 138 miles long, and was built by Capt. E. C. Midwinter, R.E., Mr. C. G. Hodgson, Mr. G. B. Macpherson Grant, and Mr. H. V. Hawkins, and was opened on the 8th of March, 1906, by Sir Reginald Wingate, Governor-General of the Sûdân. From Karêmah steamers run at regular intervals to and from Karmah, between June and March, and thus the produce of the Donkola Province can now be sent without difficulty to Atbarâ and the Red Sea and to Kharṭûm.

The principal places in the Fourth Cataract may be thus enumerated:

Bĕlăl, or Bellal, 7½ miles from Marawî, at the foot of the **Fourth Cataract**, which extends to Abû Ḥamad, a distance of 140 miles. A few miles beyond Bĕlăl, on the west bank, are the remains of a Coptic building, part monastery and part fortress, which contained a church, and opposite Hamdab Island, about six miles further on, are the ruins of a pyramid. The journey from Bĕlăl to Abû Ḥamad is difficult, but the following places in the cataract will always possess interest for the British. **Birti,** 51 miles from Marawî, the headquarters

of the River Column in the Nile Expedition of 1884; **Kirbekan,** 59 miles from Marawî, where the British defeated the Dervishes, February 10th, 1885, and General Earle was killed by a Dervish who "sniped" him from a hut; **Salamat,** 90 miles from Marawî, which was occupied by the British on February 17th; and **Habbah,** 101 miles from Marawî. On September 18th, 1884, the steamer "Abbas," with Colonel Stewart on board, was run aground on the west side of the island of Habbah, and every one of the 44 men on board, except four, was treacherously murdered by the arrangement of Sulêman Wâd Ḳamr, the shêkh of the Munâṣîr tribe. The British troops, on February 17th, 1885, destroyed the house and palm-trees and water-wheels of this shêkh, and three days later the property of Fakrî Wâd Atmân, in whose house at Habbah Colonel Stewart had been murdered, was also destroyed. The ill-fated steamer was seen tightly fixed on a rock about 200 yards from the river, with her bottom about 20 feet above low-water level; she was pitted with bullet marks and rent by fragments of shell.

Abû Ḥamad, 587 miles from Wâdî Ḥalfah by river and about 232 by rail, is near the head of the **Fourth Cataract.** On August 7th, 1897, the village was captured by General Sir A. Hunter, and about 1,200 men of the Dervish garrison there were slain; at this battle Major Sidney and Lieutenant Fitz-Clarence were killed. Abû Ḥamad derives its name from a local shêkh who is buried here, and whose memory is greatly venerated in the neighbourhood, and it owes its importance entirely to the fact that the caravans which crossed the Nubian Desert started from it. It is said that any article left at the tomb of the shêkh by a traveller on his departure will be found there uninjured on his return! At Abû Ḥamad are **excellent baths** for ladies and gentlemen.

Abû Ḥamad to Kharṭûm by Railway.

On the railway between Abû Ḥamad and **Kharṭûm** the traveller will pass the following stations:—**Mashra ad-Daḳêsh** (mile 248); **Abû Dîs** (mile 267); **Sherêk** (mile 291); **Abû Salîm** (mile 318); **Al-'Abîdîyah** (mile 343); and Berber (North) is reached at mile 361. For the first 70 miles the line runs close to the Nile; it then turns sharply into the desert, in which it runs for 20 miles, when it returns to

the Nile bank, along which it runs into Berber. Before Abû Ḥamad and Berber were connected by railway the journey was made partly by river and partly by land, the reason being that between Nadah, 68 miles from Abû Ḥamad, and Bashtanab the navigation was impeded for four miles by rocks, and by the **Fifth Cataract**, which extended from Umm Hashîyah to Ganênattah, a distance of about 14 miles. Nadah is at the foot of the Abu Sinûn Cataract, better known as the Al-Baḳara Rapid; the Fifth Cataract is called Shallâl al-Ḥimâr, or the "Cataract of the Wild Ass[es]," and the end of it is about 88 miles from Abû Ḥamad.

Berber (latitude N. 18° 1′, longitude E. 33° 59′), on the east bank of the river, marks the northern boundary of the country of the Barâbarâ, which extended as far south as Abyssinia, and included all the land on the east bank of the Nile between the Niles and the Red Sea. To this point on the Nile, from very ancient times, the products of the Sûdân, gum, ivory, ebony, gold, curious animals, slaves, etc., have been brought on their road to the coast of the Red Sea at Sawâkin, and it is probable that, for many reasons, the Sûdân boatmen were not in the habit of proceeding further north. The country round about Berber is rich, and was, and still is, with care, capable of producing large crops of grain of various kinds, which are sufficient for the needs of a city of considerable size; the city, however, owed its importance, not to the grain-producing qualities of the neighbourhood, but to its position on the great caravan routes to and from the Sûdân, and the facilities which it offered for traffic and barter. The distance from Berber to Sawâkin is about 245 miles. Two principal routes are laid down by the Intelligence Department of the Egyptian Army, but the ordinary caravan route is *viâ* Obak, 57 miles from Berber; Ariab, 111 miles from Berber; Kokreb, 145 miles from Berber; Dissibil, 200 miles from Berber; and Tambuk, 219 miles from Berber. The old town of Berber is described as having been much like a town of Lower Egypt, with dusty, unpaved streets, and houses built of unbaked bricks, and having flat roofs; in the early years of the nineteenth century it possessed a few large mosques, and abundant palm and acacia trees. Under Turkish rule the town lost much of its prosperity, and the Dervishes ended what the Turkish officials began. The new town lies to the north of the old town, and contained many large, well-built houses, but most of them have been without tenants for years, and are now in ruins.

Old and New Berber straggle along the river bank for a distance of six miles. Berber fell into the hands of the Mahdî's forces on May 26th, 1884, but it was re-occupied by the Egyptian troops on September 6th, 1897, and a week later General Sir A. Hunter entered the town with his army. At mile 384 from Ḥalfah is **Atbarâ Junction,** whence travellers can proceed by rail to **Sawâkin** and **Port Sûdân.**

The Nile-Red Sea Railway. — The history of Egypt and of the Egyptian Sûdân up to the period of the XXVIth dynasty shows that the greater part of the trading which was done between the two countries passed up and down the Nile and along the great desert routes in the Eastern and Western Deserts. There was no easy outlet for Sûdân trade on the west, and none worth mentioning on the east. There were, no doubt, ports at the places now called Sawâkin and Maṣawa' in the earliest times, and we are justified in assuming that there was a certain amount of sea-borne trade carried on between the inhabitants of the mainland and those of the Peninsula ot Arabia. During the rule of the Saïte kings many of the trade routes between Egypt and various parts of the Egyptian Sûdân were revived and developed, and under the Ptolemies the traffic on them became brisk. Still, so far as we know, no Ptolemy ever made any attempt to connect the Nile in the Northern Sûdân with the Red Sea by means of a desert route with wells at comparatively frequent intervals. Both Ptolemies and Romans followed the example of the earlier kings of Egypt, and forced all the trade of the Sûdân through Egypt. After the conquest of Egypt by the Arabs, A.D. 640, immigration of Arabs into the Sûdân took place on a fairly large scale, and the new-comers settled down on the Nile and in many a fertile spot in the Egyptian Sûdân. In process of time communication between the Nile and the Red Sea became frequent, and regular caravan routes were formed. The slave merchants, who were usually Arabs, exported by their means slaves from the country south of Khartûm, and imported stuffs, etc., which they bartered for slaves, gold, gum, etc. In 1517 we find that Salîm, the Turkish conqueror of Egypt, sent an expedition into the Sûdân *viâ* Maṣawa', and we know that it invaded Ethiopia, and made its way westwards as far as Sennaar, where the Fûngs had established their capital. Further to the north there was a caravan route between Berber and Sawâkin, and as the distance between these places was not, comparatively, great, being only from 230 to 250

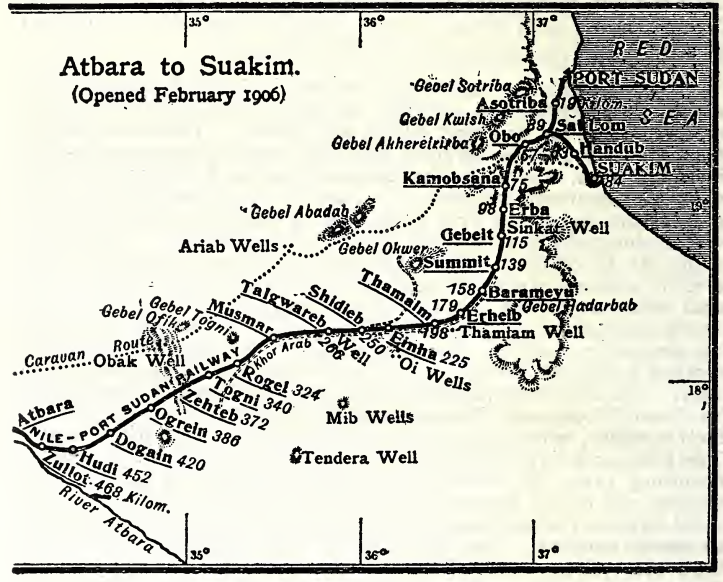
miles, it was the most frequented road between the Nile and the Red Sea for some centuries. When the Sûdân passed into the hands of Muḥammad 'Alî, large numbers of his troops and their officers regularly went to and came from the Sûdân *viâ* Sawâkin, and when steamers appeared on the Red Sea, it was quicker and safer to travel to the Sûdân by this route than by any other. When the Suez Canal was opened in 1869 everyone quickly realized that sooner or later a railway would have to be made between Berber and Sawâkin. Meanwhile more than one Khedive of Egypt was anxious to connect Cairo with the Sûdân by railway, and it is said that the first to consider seriously the matter was Sa'îd Pâshâ in 1860. Eleven years later Sir J. Fowler, the eminent engineer, proposed to build a line from Ḥalfah to Kharṭûm, which should follow the east bank as far as 'Amârah, cross the river here run along the west bank to Ambuḳôl, cross the Bayûdah Desert to Matammah, cross the river again, and so on along the east bank to the capital. Another line was to run from Dabbah to Al-Fâshar, the capital of Dâr Fûr, and a third line was to run from Sawâkin to Kharṭûm. About 33 miles of railway were laid from Ḥalfah to Sarras, and then, after an enormous sum of money had been spent, the work was abandoned, partly, it is said, because General Gordon wished it. The authorities were then, as ever, determined to force the trade of the Sûdân through Egypt, and did not appear to see that so long as caravans had to traverse some 1,200 miles of desert, no extensive development of trade was possible. The Cataracts on the Nile between Kharṭûm and Upper Egypt render the passage of goods by river most difficult and expensive, and seeing that Egypt had no real control over the country south of Aswân, all river transport was unsafe. In 1885, after the murder of Gordon and the fall of Kharṭûm, the British Government employed Messrs. Lucas and Aird to build a line from Sawâkin to Berber, but after a few miles had been laid the work was abandoned, and masses of material which were to have been used in its construction lay piled up at Sawâkin for years. Nothing further was done towards connecting the Nile with the Red Sea by a railway until August, 1904, when work on the present line began at Sawâkin under the direction of Colonel (now Sir) G. B. Macauley, C.M.G., R.E. Before the laying of the line began, the authorities decided to make the Nile terminus at Atbarâ instead of at Berber, because that point was much nearer

Ad-Dâmar, the new capital of the Berber Province. They also determined to make the Red Sea terminus at Shêkh Barghûth, a place between 35 and 40 miles to the north of Sawâkin, because a far better harbour could be made there, and it is more convenient for large ships than Sawâkin, where navigation at night is almost impossible. The name Shêkh Barghûth means "Shêkh Flea"! The place was called after a chief whose tomb stands on the northern point of the entrance to the anchorage, which has a depth of from 84 to 110 feet; it is now known as **New Sawâkin** or **Port Sûdân.** At Sal Lôm, about half-way between Sawâkin and Port Sûdân is a junction, and from it one branch line runs south to Sawâkin, and the other north to Port Sûdân.

At Port Sûdân, the east of the harbour is devoted to commercial quays, coal depôts, and customs' enclosure, and behind these are reserved sites for shipping offices and stores. The town proper lies to the west of the harbour, and here are the Government buildings, barracks, schools, prison, hospital, post and telegraph offices, etc. The quarantine station is to the south of the harbour. At present the quays are over 2,000 feet in length, and the depth of water alongside is about 30 feet at dead low water. Five large ships can be berthed. The mechanical equipment consists of five electric gantry cranes, six electric capstans, two coal berths, four coal transporters, one coal rehandling bridge; and 300 tons of coal can be dealt with per hour. The five quays and workshops are lighted by electricity, and the rolling lift bridge and all machinery are worked by electric power. A dockyard has been built, also a slipway. The total expenditure on the port and town of Port Sûdân has been £E.914,000. The entrance to the port is two cables (1,200 feet) in width, with an approach varying in depth from 40 to 70 feet. The harbour is lighted at the entrance by a dioptric light (3rd order), occulting every 10 seconds, and visible 14 miles at sea; in the narrow part of the entrance is a dioptric light (5th order), showing a red light on the port side and a green light on the starboard side to vessels entering. The light towers are about 160 and 112 feet high respectively, and the distance between them is 1,045 yards. Beacons are placed on the outlying reefs, and vessels can enter the port by day or by night without danger. Port Sûdân was opened by H.H. the Khedive on 1st April, 1909. In 1916, 286 British vessels and 31 foreign vessels entered Port Sûdân: the tonnage of the former was 632,280 and of the latter 59,619. The largest vessel that has entered the port was 16,909 gross tonnage.

From Sawâkin the line runs north, and then ascends a very hilly plateau about 3,000 feet high, which runs parallel to the coast. It then strikes in a south-westerly direction across the desert to the Atbarâ, which it reaches about 20 miles from the junction of that river with the Nile. From this point it follows the course of the Atbarâ until it reaches the Wâdî

Ḥalfah–Kharṭûm line, about a mile north of the iron bridge (Atbarâ Junction). The total length of the line is 331 miles, and there are 25 miles of sidings; the line was laid on the telescopic system. The steepest gradient is 1 in 100, and the sharpest curve 5 degrees. The cost of the line was £E.1,375,000, or about £E.4,150 per mile of main line. Work was begun at both ends simultaneously, that at Atbarâ being under the direction of Major E. C. Midwinter, D.S.O., R.E. At the Sawâkin end much blasting of rock had to be done, and the wash-outs which took place in the hills here



The Nile–Red Sea Railway.

were heart-breaking. Drinking water had to be distilled from sea-water, every ton of which was carried in tanks into the desert. Scarcity of labour was another difficult matter. Colonel Macauley hired numbers of Arabs from the neighbourhood of Sawâkin, and set them to work, but these men preferred brigandage or robbery to manual labour, and as they could not be induced to do the earth work of the line they had to be sent away. A few Abyssinians were employed in bridging, but the bulk of the work on the line was done by the Nubians of the Nile Valley, and the fallaḥîn from Egypt.

The Egyptian cannot be surpassed as a labourer. Systematic work on the line began in October, 1904, and on October 15th, 1905, the first train from Ḥalfah entered Sawâkin. A few weeks later the state of the permanent way made it possible to run through trains at regular intervals, and from January 1st, 1906, a bi-weekly service of trains was established; it was formally opened on January 27th at Port Sûdân. The line, it is true, passes through a desert, from which little traffic is to be expected, but it is important to remember that it will tap all the fertile districts of the Sûdân. The produce of the Donḳola Province will be brought to the main Ḥalfah-Kharṭûm line by the branch which runs from Karêmah, near Gabal Barkal, to No. 10 station in the Abû Ḥamad Desert, and it will find its outlet at Sawâkin *viâ* Atbarâ. From the south will come the gum, cotton, and cereals of Dâr Fûr, from the east the products of the Blue Nile and Kassala Provinces. Port Sûdân and the railway are open on equal terms to the trade of all the world. There are no differential rates or duties to favour the trade of any one nation. The stations are :—

PORT SÛDÂN	84 kilometres from Sawâkin.			
Ssotribu	19	,,	,,	Port Sûdân.
Aal-Lôm Junction ...	39	,,	,,	,,
SAWÂKIN.				
Handûb	21	,,	,,	Sawâkin.
Sal-Lôm Junction ...	45	,,	,,	,,
Obo	57	,,	,,	Port Sûdân.
Kamobsana	75	,,	,,	,,
Erba	98	,,	,,	,,
Gebeit	115	,,	,,	,,
"Summit"	139	,,	,,	,,
Barameyu	158	,,	,,	,,
Erhêb	179	,,	,,	,,
Thamiam	198	,,	,,	,,
Einha	225	,,	,,	,,
Shidieb...	250	,,	,,	,,
Talgwareb	266	,,	,,	,,
Musmar	299	,,	,,	,,
Rogel	324	,,	,,	,,
Togni	340	,,	,,	,,
Zehteb	372	,,	,,	,,
Ogrên	388	,,	,,	,,
Dogaia	420	,,	,,	,,
Hûdi	452	,,	,,	,,
Zullot	468	,,	,,	,,
ATBARÂ JUNCTION ...	486	,,	,,	,,

The **River Atbarâ**, or Muḳrân, the Astaboras of Strabo, which flows into the Nile on the east bank, is at this point

about 450 yards wide, and in the rainy season has a depth of water in it which varies from 25 to 30 feet. It brings down the entire drainage of Eastern Abyssinia, and its principal tributaries are the Setit, Royân, Salâm, and Anḳareb Rivers; it carries into the Nile more soil than any other of the Nile tributaries, and the dark brown colour of its waters has gained for it the name of Bahr al-Aswad or "Black River." For more than 150 miles before its junction with the Nile its bed is perfectly dry from the beginning of March to June, and the late Sir Samuel Baker says that "at intervals of a few miles there "are pools or ponds of water left in the deep holes below the "general average of the river's bed. In these pools, some of "which may be a mile in length, are congregated . . . croco-"diles, hippopotami, fish, and large turtle in extraordinary "numbers, until the commencement of the rains in Abyssinia "once more sets them at liberty by sending down a fresh "volume of water." The rainy season begins in Abyssinia in May, but the torrents do not fill the bed until the middle of June. From June to September the storms are terrific, and every ravine becomes a raging torrent, and the Atbarâ becomes a vast river. "Its waters are dense with soil washed down "from most fertile lands far from its point of junction "with the Nile; masses of bamboo and driftwood, together "with large trees and frequently the dead bodies of elephants "and buffaloes, are hurled along its muddy waters in "wild confusion." The rains cease about the middle of September, and in a very short time the bed of the Atbarâ becomes a "sheet of glaring sand," and the waters of its great tributaries, though perennial streams, are absorbed in its bed and never reach the Nile. The velocity of the Atbarâ current is so great, and its waters so dense, that in flood it forces the water of the Nile across on to the western bank. The railway is carried over the Atbarâ by means of an **iron bridge.** The new bridge is 1,052 feet long between the end piers, and consists of seven spans, each measuring 147 feet from centre to centre of end pins of trusses. In the new structure the old cross-girders and stringers are used, but the main girders have been renewed. The new main girders have been accommodated to the old bearings, which rest on cast-iron cylinders and could not be removed, and they have been built so as to suit the old cross-girders, which have an overall length of 15 feet $3\frac{1}{2}$ inches. The web members of the new main girders have a width of 1 foot, and the new spans a total

width of 15 feet $4\frac{1}{2}$ inches, centre to centre of main girders. There is provision for the attachment at some future time of sidewalks, on both sides of the bridge, supported on brackets. The contract included the building of a temporary bridge to carry the deviation of the railway across the river, and this structure was capable of carrying the main-line traffic of the Sûdân Government railway system. The work was begun in December, 1910, and the new bridge was completed by May 31st, 1911, in time for use before the flood season of the Atbarâ river. The **Battle of the Atbarâ** was fought on April 8th, 1898, at a place called Nakhfilah, about 37 miles from the junction of the river with the Nile, on the right bank. The Dervish force numbered about 14,000 men, and of these about 3,000 were killed and wounded, and 2,000 were made prisoners. The Anglo-Egyptian loss was 5 officers and 78 men killed, and 475 officers and men wounded; large numbers of swords, spears, rifles, 100 banners, and 10 guns, fell into the victors' hands, and Maḥmûd, the Dervish general, was captured.

Having crossed the Atbarâ the traveller now enters the country which Strabo (xvii, 2, § 2) calls the **Island of Meroë;** the name "island" was probably given to it because it is, generally speaking, bounded by the Atbarâ, the Nile, and the Blue Nile. Strabo says that its shape is that of a shield, and goes on to mention that it is "very mountainous and contains great forests"; but from this statement and the fact that he speaks of the "mines of copper, iron, gold, and various kinds of precious stones," we may conclude that he is referring to the country south of Kharṭûm. Of the early history of the country nothing is known, and the statements made by Greek writers about its peoples and their manners and customs must have been derived from the garbled traditions left by ancient Egyptian officials who travelled to the south, and perhaps from merchants who were not well informed, and soldiers who were quartered in Nubia. The name given to the chief city of the Island by the Egyptians is Mârâu, , or Barua, , whence the name Meroë clearly is derived. The last determinative indicates that the town was built in a mountainous district, and lends support to Lepsius' derivation of the name from a Berber word *mérua* or *méraui*, "white rocks," "white stones."

A little above the mouth of the Atbarâ, on the right bank,

are the ruins of the once flourishing little town of **Ad-Dâmar,** which was famous, like Marawî near Gabal Barkal, as a seat of Muḥammadan learning. The modern town has a railway station, and is 392 miles from Ḥalfah. It is now the capital of the Berber Province. From this place to Shendî the east bank is flat and covered with a thick growth of scrub, thorn bushes, and ḥalfah grass, which have swallowed up everything, and the strip of cultivable ground is of considerable width; on the west bank the ground is also flat, and the strip is less wide. Here and there ravines, or "khors," run back from the river, and in flood time these are filled with rushing torrents. The whole district bears emphatic testimony to the results of the misgovernment of the Turkish Governors-General, and the rule of the Dervishes. When the writer first visited the neighbourhood in 1897–98 there were few people to be seen, no cattle existed, only here and there was a water-wheel at work, and only here and there a few sheep or goats were found; the gazelles in the desert were almost as numerous as the sheep. The very dogs had been exterminated by the Dervishes, and scores of houses in each village were empty and desolate. The next places on the line are **Zêdab** (404 miles), **'Alîâb** (416 miles), **Muḥmîyah,** or **Mutmîr** (429 miles), and **Kabûshîyah** (448 miles).

At a distance of about 40 miles from the mouth of the Atbarâ, we reach the district of Bagrâwîr, which substantially marks the site of the **City of Meroë.** The site was correctly located by Cailliaud in 1820–21, and he marked its position accurately on his map of the Sûdân which was published in 1827. A portion of the site, namely, a part of the temple of Amen and several houses, was excavated by Ferlini and Stefani in 1832–34, and Erbkam (1842-45) made a scale map of the ancient town which was published by Lepsius in the *Denkmäler* (1849–59). In 1898 and 1899 the writer went over the site with the map of Lepsius, and had the sand cleared away from some of the stone rams of the temple of Åmen. He again went over the site in 1900 with a view of making excavations along the temple wall, but the plan had to be abandoned because labour was not to be had. In 1906–8 the natives began to dig out the ruins of the temples of Meroë in searching for antiquities, and in 1909 Professor Garstang and Professor Sayce began to excavate the site systematically. The following brief notes are derived from the account of their work, which was published early in 1911. The ruins of the

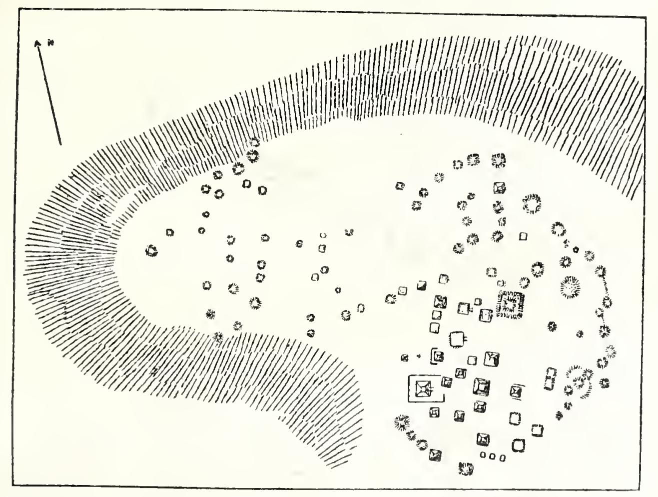
great **Temple of Åmen** lie between the villages of Bagrâwîr and Keyek, about half a mile from the river on the east bank. In front of this temple stood a **kiosk** 14 metres long and 11·50 metres wide; its walls were of stone, with rounded angles. There was a doorway in the west wall, and probably one in the east wall when the building was made. In the interior of the building were three pairs of brick pedestals, on which rested round, stone columns; the pedestals were breast high, like the walls. This kiosk had open sides and ends. About 21 metres to the west of the kiosk are the remains of the great pylon of the temple. The first hall contained 24 round pillars, and was about 64 metres long and 20 metres broad; the south side was splayed out towards the west end. In the centre of this hall were the ruins of a small building dating, apparently, from the time of Queen Amentarit and Netek Åmen. The entrance through the second pylon led to a small court with eight columns resting on brick bases; the third pylon led to a court with six columns, and beyond this was a room with four columns, two on each side. A square altar stood by the side of each column on the left. The main sanctuary lay due west of this chamber, and in it stood a square altar about 3 ft. 6 ins. high; by this were found two votive tablets, and a Cippus of Horus, on which were cut magical texts similar to those on the Metternich Stele. On the north side of the sanctuary was a chamber, the door-jambs of which were decorated with paintings and reliefs. On the south side of the sanctuary were a second sanctuary and a chamber, 12 metres by 5 metres, containing eight round pillars, an altar (north side), and a flight of steps leading to a daïs. Behind the shrines were three small chambers which appear to have been of a funerary character; beyond these were a corridor and a long chamber which was approached by a flight of steps. The temple was built of brick, was about 135 metres long, and was enclosed by a temenos wall. In the course of the excavations a number of very interesting objects were found. In 1912–13 Professor Garstang continued his excavations and cleared out a large part of the town that stood here in the early centuries of the Christian Era. He discovered the ruins of a small temple and of two or more palaces, and the very fine bronze head of a Roman Emperor, which is now in the British Museum.

To the north of the village of Bagrâwîr stood, on a mound, the ruins of a building to which the natives gave the name

Kanîsah, *i.e.*, "Church." The main part of the building contained two halls, one having eight pillars and the other four, and these led to the sanctuary in which stood the altar, resting on tiles. The length of the building was about 23 metres, and it may have been dedicated to the worship of Isis. A little to the east of the Temple of Åmen are the ruins of the **Lion-temple,** so called because of the two lions which guarded the flight of steps by which its chambers were approached. The figures of lions found during the excavations suggest that the building was dedicated to the Lion-god of the district. The Lion-temple was about 23 metres long, and its main portion consisted of two square chambers, each containing two columns which stood on brick bases. Further eastward still are the ruins of a building which is described as a **Sun-temple.** It was about 33 metres long and 22 metres broad, and was enclosed by a temenos wall. The main entrance to the enclosure was from the east. Outside the enclosing wall were two kiosks, and inside a ramp led to the platform, upon which was built a cloister, running entirely around and enclosing the sanctuary. The sanctuary was approached by a flight of nine steps. The floor and sides of this chamber were covered with plain glazed tiles. At the west end are the remains of an altar. The excavations of the buildings described above have brought to light a number of very valuable inscriptions in the Meroïtic character, inscribed altars, pottery of various kinds, etc., and it is said that in one of the sites a large quantity of gold, about £4,000 in value, was discovered.

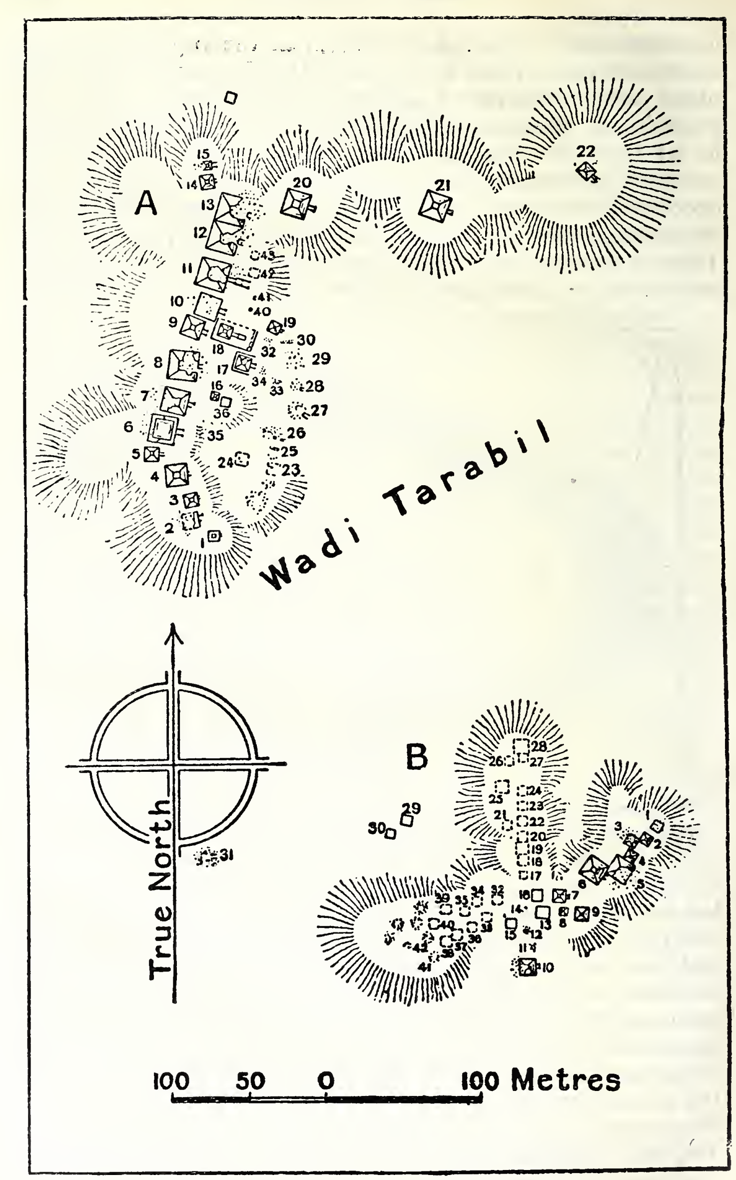
The **Pyramids of Meroë** lie about 2½ miles east of the railway. These pyramids are the tombs of the kings and royal personages who reigned over the Island of Meroë in the capital city, which seems to have stood near the modern village of Bagrâwîr (the Bagromeh of Hoskins), and are also called the Pyramids of As-Sûr. The general arrangement of the largest group, which is in the plain, about 1¾ miles from the river, is illustrated by the following plan; nearly all are in ruins, for the stone casings have been removed by generations of natives. At no great distance from these pyramids are the ruins of a temple and the remains of an artificial depression, which seems to mark the site of the sacred lake of the temple. The other two groups of pyramids are situated further to the east, and are built on low hills, the smaller group lying to the south-east of the larger; and some of their pyramids are quite in ruins. The most interesting group is that which is built on

a comparatively high hill, and which at the beginning of the nineteenth century was in a good state of preservation, as the plates which illustrate Cailliaud's *Voyage* prove. The 29 pyramids of this group vary in size at the base from 20 feet to 63 feet. In front of each pyramid was a chapel which consisted of one or more chambers, the walls of which were decorated with reliefs, in which kings and queens were depicted worshipping the local gods and making offerings to them. There is little doubt that the sites of these groups of pyramids were used as burial grounds from an extremely early period,



The Largest Group of Pyramids at Meroë. These are the nearest to the river. (Drawn from the plan of Lepsius.)

but the inscriptions of the pyramids now standing there show that they belong to a period which lies between about 200 B.C. and A.D. 250. Both reliefs and inscriptions prove that the Nubians, or Ethiopians as they are often called, were *borrowers* from, and not the *originators* of, the Egyptian civilization, with its gods and religion, and system of writing, as some following Diodorus have thought. The royal names found in some of the chapels are those of the builders of the great temples at Nagaa, and others are those which are known from buildings at Daḳḳah, 'Amârah, and Gabal Barkal. In them also are inscriptions in the character called Meroïtic, which in some



The Second and Third Group of Pyramids at Meroë.
(Drawn from the planof Lepsius.)

respects resembles the demotic: Lepsius had no doubt that they were contemporaneous. It is not at present possible to arrange the royal names of the Nubian or Ethiopian kings in chronological order, especially as many of them seem to be peculiar to certain parts of the old kingdom of Meroë, and it is possible that many of their owners were contemporary. It is, however, evident that when this kingdom was in its most flourishing state the rule of its kings extended from the Blue Nile to Aswân.

In 1834 an Italian doctor called Ferlini selected one of the largest pyramids on the crest of the hill at Bagrâwîr (*i.e.*, the one marked F in Cailliaud's plan, and the most westerly of the group) and began to pull it down. In the course of the work an entrance to a chamber was accidentally discovered, wherein were found a large quantity of jewellery, boxes, etc., of a most interesting character. This treasure was not buried, as one would expect, in a chamber below the surface of the ground, but in a small chamber within the masonry of the pyramid near the top. One good result attended this lucky "find," for it became certain that the period when the jewellery was placed in the pyramid was Roman, and the inscriptions on the chapel of the pyramid showed that the queen for whom the pyramid was built was the great queen who is depicted on the walls of the ruins at Nagaa with richly decorated garments and pointed nails some inches long. The ill result that followed the discovery was the destruction of several pyramids by treasure seekers, and Lepsius relates that when he was there Osmân Bey, who was leading back his army of 5,000 men from Tâka (Kassala), offered him the help of his battalions to pull down all the pyramids, in order to find treasure as Ferlini had done. The few natives found by the writer at Bagrâwîr would hardly approach the pyramids by day, far less in the evening or by night, and the shêkh Ibrâhîm, who had been in the employ of General Gordon, declared that it was "not nice" to intrude upon the "spirits of the kings who were taking their rest in the mountain." Seen from the river at sunset, the western sides of the pyramids appear to be of a deep crimson colour.

In 1903 the writer excavated a number of the Pyramids of Meroë for the Governor-General of the Sûdân, Sir F. R. Wingate, and he is convinced that the statements made by Ferlini are the result of misapprehension on his part. The pyramids are solid throughout, and the bodies are buried

under them. A discussion of the evidence will be found in the first volume of the writer's *History of the Egyptian Sûdân.*

The following is a brief description of the Pyramids of Groups A and B :—

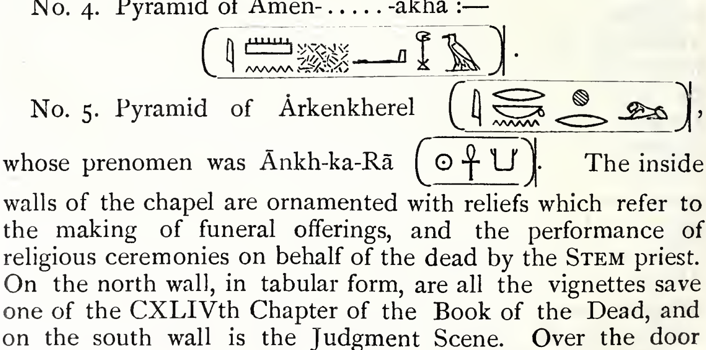
A. Northern Group.

No. 1. The step-pyramid of Queen Kentaḥebit, whose name Lepsius believed to be the original of the "Candace" of classical authors. She was also called Åmen-ārit. The reliefs in the chapel are of considerable interest, and many of them will be familiar to the visitor who has examined the tombs in Egypt. This pyramid is probably one of the oldest of the group.

No. 2. In a very dilapidated state; the figures on the west wall of the chapel were mutilated in Cailliaud's time. Some of the figures in the reliefs were coloured. The chapel has been used as a sleeping place by many natives, who have left *graffiti* behind them, and some of the stones have been injured by bees. In front of the door a set of iron fetters was dug up in 1903, and it was thought that they were of the kind used by the Dervishes for captives of the better class; they are now in the museum at Kharṭûm. On the outside of the north wall of the chapel are sculptured some fine figures of Sûdânî bulls.

No. 3. A pyramid much ruined; the chapel is without reliefs and inscriptions.

No. 4. Pyramid of Åmen- . . . . . -ākha :—



No. 5. Pyramid of Årkenkherel, whose prenomen was Ānkh-ka-Rā. The inside walls of the chapel are ornamented with reliefs which refer to the making of funeral offerings, and the performance of religious ceremonies on behalf of the dead by the Stem priest. On the north wall, in tabular form, are all the vignettes save one of the CXLIVth Chapter of the Book of the Dead, and on the south wall is the Judgment Scene. Over the door inside is cut in large letters "P.C. Letorzec, 1820," *i.e.*, the

name of Cailliaud's fellow traveller. The king for whom this pyramid was built was a priest of Osiris, and he probably lived during the early part of the Ptolemaïc Period.

No. 6. Pyramid of Queen Amen-Shipelta (?) [hieroglyphs]. When complete it was nearly 80 feet high. It was pulled down by Ferlini, an Italian, who declared that he found in a chamber near the top the collection of jewellery, one portion of which was purchased by the Berlin Museum, and the other by the Antiquarium at Munich. Half-way down, in the middle of the pyramid, he stated that he also found two bronze vessels, with handles, of very fine workmanship. A portion of the chapel, with a vaulted roof, still remains, and on the walls are still visible reliefs in which the queen who had the pyramid built is seen wearing a number of elaborate ornaments of curious and interesting workmanship. On the face of the pylon of the chapel may still be traced figures of the queen in the act of spearing her enemies.

No. 7. Pyramid of Murtek [hieroglyphs], who was surnamed "Alu-Åmen, the ever-living, beloved of Isis." On the angle-stones of the tenth layer from the ground are cut the two eyes of Horus, each of which looks toward the chapel [hieroglyphs]. The walls of the chapel are ornamented with vignettes and texts from the Saïte, or Ptolemaïc, Recension of the Book of the Dead.

No. 8. A large, well-built pyramid; the chapel is buried under the stones, sand, etc., which have fallen from its top.

No. 9. A large pyramid, the east side of which is in a state of collapse. The chapel is built of massive stones, but contains neither inscriptions nor reliefs. It is probable that the sepulchral chamber beneath the pyramid was never occupied.

No. 10. The pyramid which stood here was removed in ancient days. Portions of the chapel still remain, and from these we see that its walls were ornamented with the Judgment Scene from the Book of the Dead, the weighing of the heart, and representations of funeral ceremonies.

No. 11. This is the largest sepulchral monument on the Island of Meroë. The pyramid was about 80 feet high, and is about 65 feet square, and it is formed of well-cut stones. The buildings in front of it, which consisted, when complete,

of a forecourt, a pylon, a hall, and a chapel, were about 80 feet long, so that the total length of the monument was nearly 150 feet. In 1903 the hall and the greater part of the chapel were cleared out by Captain Lewin, R.F.A., Captain Drake, R.F.A., and myself, and the rest of the chapel was emptied in 1905 by Mr. J. W. Crowfoot and myself. In the latter year the sculptures from the west wall of the chapel and other objects were found, and were taken to Kharṭûm. The north and south walls of the chapel were removed stone by stone, the former being sent by Sir Reginald Wingate's orders to Kharṭûm, and the latter to the British Museum, where it has been built up at the south end of the Egyptian Gallery. The reliefs on both the north and south walls of the chapel are very elaborate, and are the finest examples of Meroïtic funeral sculpture known.

Nos. 12 and 13. The chapels of these pyramids have not been cleared out.

No. 14. A passage was driven through this pyramid from the east to the west side, and a shaft cut through it from the top to the bottom, with the view of proving the impossibility of sepulchral chambers existing in the pyramids of Meroë, as those who accepted Ferlini's statements thought. In 1903 we found the pit which led to the short corridor by which the deceased was taken into the sepulchral chamber beneath the pyramid.

No. 15. The remains of this pyramid were removed in 1903 to test the truth of the assertion that the sepulchral chamber was placed sometimes behind the chapel. No such chamber was found here, and the deceased was buried below his pyramid, as was always the case. When clearing out the shaft under the remains of the chapel, we found pieces of a blue-glazed altar inscribed in the Meroïtic character; these are now in the museum at Kharṭûm.

No. 16. This pyramid is unlike any other of the group, for the chapel is within the pyramid itself, its roof being formed by the stones of the sides of the pyramid, which project one over the other and so make the enclosed space vault-shaped.

No. 17. Pyramid of a Negro king of Meroë who was called



; his prenomen was Neb-Maāt-Rā (cartouche). The western end of the south wall, on which is a good representation of the king, where-

from it is clear that he was of Negro origin, was removed to Berlin by Lepsius.

No. 18. The important and interesting ruin of the pyramid of King Åmen-Khetashen (?) [cartouche]. The eastern face, which was standing in 1905, is nearly 40 feet high, and well-cut figures of the king are to be seen on each wing of the pylon. The Meroïtic inscription which Cailliaud saw on the "face principal" of the building was removed to Berlin by Lepsius.

No. 19. Pyramid of King Tirikanlat (?) [cartouche]. The reliefs prove that its builder was a Negro, and that he slew his enemies in the traditional manner.

No. 20. A well-built pyramid. Its shaft was excavated in 1903, and the burial place of the deceased found.

No. 21. A pyramid of little interest. A pole projects from the platform on the top; it was probably driven through it by searchers after the sepulchral chamber who thought it was situated at the top of the pyramid.

No. 22. Pyramid of Åmen-netek [cartouche] or [cartouche], whose prenomen was Kheper-ka-Rā [cartouche]. His wife was called Åmen-tarit [cartouche], and both their names are found on an altar which Lepsius removed from Wad Bâ Nagaa to Berlin.

Nos. 23–26. These pyramids were excavated in 1903.

No. 27. Pyramid of a late king of Meroë called [cartouche], whose prenomen was Kheper-ka-Rā [cartouche].

Nos. 28–30. Ruined pyramids.

No. 32. Pyramid of a queen; her name is wanting.

Nos. 33–36. Ruined pyramids.

Nos. 37–39. (Lepsius' numbers.) Already described (Nos. 16–18).

Nos. 40–43. Small pyramids excavated in 1903.

B. Southern Group.

These pyramids lie to the south-east of the northern group.

No. 1. Ruined pyramid. Many of its stones were used in the construction of the other pyramids.

No. 2. The chapel of this pyramid was not decorated with reliefs and is in ruins.

No. 3. This pyramid was destroyed in ancient days, and its chapel is in ruins.

No. 4. Pyramid of Queen Kenreth or Kenrethreqn ; her other name was Serren . Other names or titles found in the text are Peru and Ka-nefert . In the reliefs we see the gods Ṭaṭ, Thoth, Horus, Anubis, Khnemu, and Geb taking part in the funeral ceremonies of the queen.

No. 5. Pyramid of Queen Åsru-meri-Åmen , whose prenomen was Nefer-ānkh-àb-Rā . There are few pyramids in the Sûdân in which the ancient spirit and character of Egyptian art are so well preserved.

No. 6. Pyramid of Årq-neb-Åmen , whose prenomen was Khnem-àb-Rā .

No. 7. This pyramid and its chapel are partially ruined.

No. 8. The chapel of this pyramid was pulled down to make room for No. 9.

No. 9. A complete pyramid, built of well-cut stones, with a ruined chapel.

No. 10. Pyramid of Kaltela , whose prenomen was Kalka .

The other pyramids of this group are in ruins and nothing useful can be said about them.

C. The third group of pyramids, about forty in number, lies about a mile to the west of the northern and southern groups. They are half buried in sand, are unimportant, and many of them were built of stones taken from the southern group.

D. The fourth group of pyramids, about 112 in number, lies still farther to the west, on the edge of the desert, near the cultivable land by the river. Cailliaud called the group the "Pyramids of Aṣ-Ṣur" and Lepsius "Group C." They varied in height from 10 to 60 feet, and the largest of them stood in walled enclosures. From two of them Lepsius obtained a stele and an altar bearing inscriptions in the Meroïtic character.

Between Kabûshîyah and Shendî the populous village of **Taragmah** is passed at mile 460 from Ḥalfah.

Shendî, on the east bank of the river, was once a large town, containing several thousands of inhabitants, and possessed a considerable trade with the northern and southern provinces on the east bank of the Nile. In the year 1820 Muḥammad 'Alî sent his son Ismâ'îl Pâshâ with 5,000 soldiers to conquer Sennaar, and another force of about the same strength to conquer Kordôfân. Ismâ'îl was successful in his mission, but the year following he was invited by Nimr, the Nubian governor, to a banquet in his palace at Shendî, and during the course of the entertainment the palace was set on fire and the Egyptian prince was burned to death. Muḥammad Bey the Daftardar, son of Muḥammad 'Alî, at once marched to Shendî, and, having perpetrated awful cruelties upon nearly all its inhabitants, destroyed houses and gardens and property of every kind. Shendî was a Dervish stronghold for some years, but it was re-occupied by the Egyptian troops on March 26th, 1898. Shendî is the headquarters of the Sûdân Cavalry. New bâzârs have been built, and in a very few years' time the town will be as important as it was before the revolt of the Mahdî.

Maṭammah, on the west bank of the Nile, a few miles above Shendî, had, in 1885, about 3,000 inhabitants, two or more mosques, and a market twice a week. In 1897 the Gaalîn Arabs in and about the town revolted against the Khalîfah's authority, and having fortified the place they awaited the result. Maḥmûd, by the Khalîfah's orders, attacked it on July 1st, and after a three days' fight, all their ammunition being expended, the Gaalîn were compelled to submit, for Maḥmûd had surrounded the town with his troops. The victors promptly slew 2,000 men, and women and children were massacred

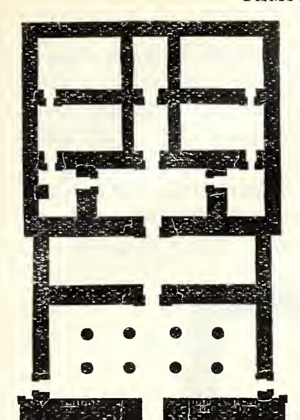
mercilessly; the prisoners were drawn up in a line and treated thus: the first was beheaded, the second lost a right hand, the third his feet, and so on until every man had been mutilated. The Gaalîn chief, 'Abd-Allah wâd Sûd, was walled up at Omdurmân in such a position that he could neither stand nor sit, and was thus left to die of hunger and thirst (Royle, *op. cit.*, p. 521). General Sir A. Hunter bombarded the town on October 16th, 17th, and November 3rd, 1897, and it was evacuated by Maḥmûd in March, 1898.

At mile 483 the station of **Al-(Ḳôz)Gôz** is passed.

About 25 miles south of Shendî, on the east bank, is the railway station of **Wâd Bâ-Nagaa**, about 496 miles from Wâdî Ḥalfah; here is the entrance to the Wâdî Bâ-Nagaa, and near it is a little village called **Bâ-Nagaa.** Three miles down the river are the ruins of a small ancient Nubian temple, which, according to Hoskins, measured about 150 feet in length; it contained six pilasters about 5 feet square. The principal remains are two columns on which are figures of Bes in relief. Here are found two kneeling statues of Åmen-ḥetep II, which proves that this king founded, or added to, a temple in this place, and this fact indicates that the authority of the Egyptians extended over the Island of Meroë as far as the Blue Nile.

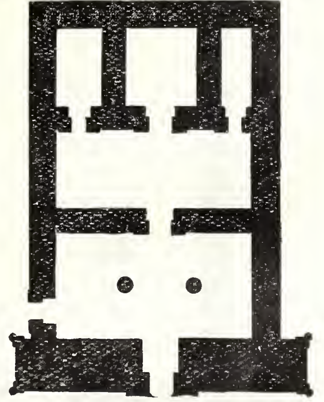
Excursion to Nagaa.—Travelling in a south-easterly direction, and passing Gabal Buêrib, about 25 miles distant, we come to the ruins of **Nagaa**; these are usually called by the natives of the district, Muṣawwarât* an-Nagaa, *i.e.*, the "sculptures of Nagaa," as opposed to the Muṣawwarât al Kirbekân, *i.e.*, the sculptures of Bâ Nagaa, in the Wâdî Kirbekân, and the Muṣawwarât aṣ-Ṣufrah, *i.e.*, the sculptures of the Wâdî aṣ-Ṣufrah. The ruins consist of the remains of at least seven temples, and there is no doubt that they belong to the late Ptolemaïc or early Roman period. The reliefs here will illustrate how closely the architects and masons tried to copy Egyptian models, and the cartouches show that the kings, whoever they were, adopted prenomens formed on the same lines as those used by the old kings of Egypt. The gods worshipped were the same as those of Napata and other Nubian cities, but there are here in addition to them a god with three lions' heads, a god who resembles Jupiter Sarapis, and a god, with rays emanating from his head, who is probably a form of Helios or Apollo. Before satisfactory

* Arabic, مُصَوَّرَات, sculptures, bas-reliefs, images, paintings, and the like.



plans of the temples here could be drawn, excavations and clearances on a large scale would have to be made.

Twelve miles from Nagaa, in a north-easterly direction, is a comparatively small circular valley, which, because it resembles in shape a circular brass tray, is called Aṣ-Ṣufrah. Here are the **Muṣawwarât Aṣ-Ṣufrah,** or ruins of a group of buildings enclosed within

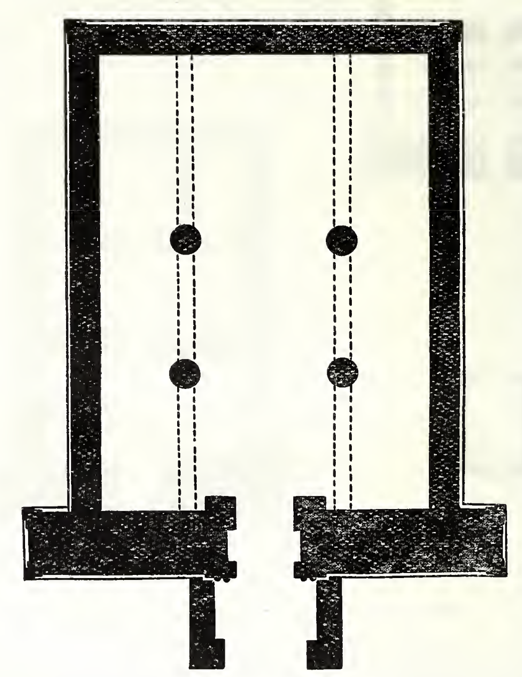


Plan of a small Temple at right angles to the Large Temple at Nagaa. (From Lepsius.)

walls, without inscriptions and without reliefs, which, according to Hoskins, measured 760 feet by 660 feet; there were no entrances on any side except the north-west, where there were three. The walls enclosed five or six small temples, in one of which were several pillars. Cailliaud thought that the ruins of the main building were those of a school, and Hoskins of a hospital, while Lepsius offered no opinion; but

Plan of the Large Temple at Nagaa. (From Lepsius.)

it is useless to theorize until systematic excavations have shown what the plan of the group of buildings actually was. Close by are the ruins of a small temple with reliefs, on which men are depicted riding elephants, lions, panthers, and other wild animals; all the ruins in this neighbourhood seem to belong to the Roman period. A very interesting phase of desert life, viz., the watering of the flocks, is to be seen at **Bir Nagaa**, or "Well of Nagaa," which claims a visit. Each tribe has a

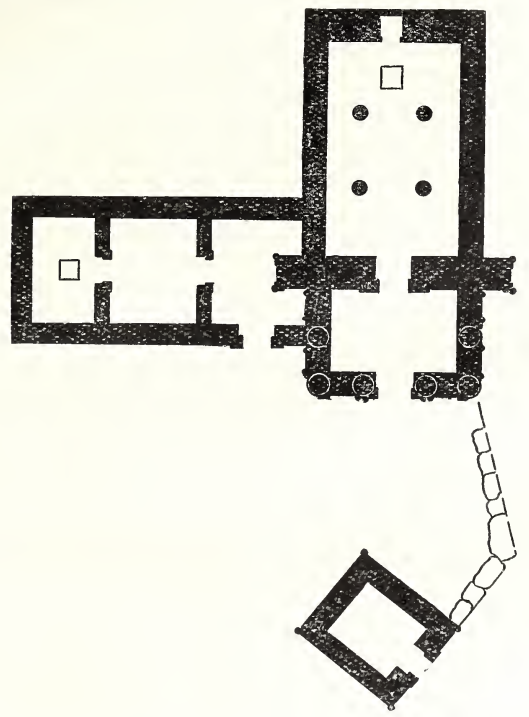


Plan of a small Temple near the Plain of Nagaa. (From Lepsius.)

place for its representative at the well, and the water is drawn up in skins. From Shendî an almost direct route runs to Nagaa, distance about 30 miles, and there is another to Aṣ-Ṣufrah, distance about 26 miles.

At mile 511 **Al-Mêgah** is passed. Near **Gabal Gârî**, 524 miles from Wâdî Ḥalfah, begins the **Sixth Cataract**, commonly called the **Shablûkah Cataract**; it begins at the north end of Mernat Island, on which General Gordon's

steamer, the "Bordein," was wrecked on January 31st, 1885, and extends to Gabal Rawyân, a distance of 11 miles. At the entrance to the Shablûkah gorge, the channel turns sharply to the east, and is only 200 yards wide; in July the rate of the current through this channel exceeds 10 miles per hour. The Dervishes guarded the northern end of the channel by five forts, four on the western and one on the eastern bank.



Plan of Temples on the brow of the Hill at Nagaa. (From Lepsius.)

From this point to Omdurmân there is little to be seen of general interest. At mile 538 the station of **Rawyân** is passed, and at mile 547 is **Wâd Ramlah**; near the latter place is **Gêlî,** where Zubêr Pâshâ took up his abode. At mile 560 is **Kûbalâb.** The hills of **Kerreri,** 7 miles from Omdurmân on the east bank, opposite **Gabal Surkab** on the east bank, mark the site of the great **Battle of Omdurmân,**

on Friday, September 2nd, 1898, when the Khalîfah's army was practically annihilated; on the same day the Sirdar marched into the city of Omdurmân, and the rule of the Khalîfah was at an end.

At mile 575 from Wâdî Ḥalfah we come to **Ḥalfâyah** or **Kharṭum North,** with a population of 15,973 in 1917; it is the terminus of the railway and lies on the right bank of the Blue Nile, a little above Tuti Island, and is exactly opposite Kharṭûm.

The **Kharṭûm Bridge.**—The width of the river at this point is about 1,700 feet. The bridge has seven spans each 218 feet 6 inches in length, with four approach spans varying from 40 to 80 feet in length. Each span has a revolving section for the passage of boats. In each of the main spans there are over 500 tons of steelwork, and, inclusive of the steel in the cylinders, the aggregate is 5,000 tons. Each span is composed of two main girders of bowstring pattern, the effective depth at the centre being 34 feet. At the northern end is a rolling lift span of 100 feet, which is worked electrically. The bridge has a clear width of 50 feet, and carries one 3 feet 6 inches gauge railway line, one 21 feet roadway, and a footpath of 11 feet width carried on brackets outside the main girders. The piers, composed of steel cylinders filled with concrete, each cylinder having a diameter of 16 feet at the cutting edge, are carried to an average depth of 60 feet below low Nile level. The clear headway below rail level is 17 feet at high Nile and 40 feet at low Nile. The contractors were the Cleveland Bridge and Engineering Company (Limited), of Darlington, who completed the bridge in December, 1908.

KHARṬÛM.

Cook's Office, Grand Hotel (season only).

Hotels.—Grand Hotel, Gordon Hotel.

Post and Telegraph Office on the Embankment.

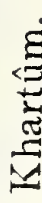
Churches.—All Saints' Cathedral, consecrated in 1912. The North transept forms the Gordon Memorial Chapel. American Mission. Church Missionary Society. Roman Catholic Church.

Steam Trams to the steam-ferry, whence Omdurmân. (Fare, 1 piastre.) Thence tram to the Great Market.

Golf Links.—Near the Central Station; also at Omdurmân.

Excursions (by steamer), **Gondokoro and back** (26 days), **Kosti and back** (10 days); also to **Omdurmân,** the **battlefield of Kerreri,** etc.

Kharṭûm or **Kharṭûm South**, stands on the left bank of the Blue Nile, on the tongue of land formed by the junction of the Blue and White Niles, just above **Tuti Island**, which has the Blue Nile on two of its sides and the White Nile on the third; its exact position is given as lat. N. 15° 36′, long. E. 32° 32′. **Population:** in 1917, Kharṭûm City 23,083, Kharṭûm North 15,973. It was founded by the sons of Muḥammad 'Ali between 1820 and 1823, by their father's orders, for he quickly realized the importance of the site on which it stands as a commercial centre for the trade of the Gazîrah (*i.e.*, the grain-producing land between the Blue and White Niles) and of the remote regions of the Blue and White Niles. The name "Kharṭûm" means an "elephant's trunk," and it may be noted in passing that the old Egyptian name of the Island of Elephantine off Aswân was "Abu," *i.e.*, "Elephant"; these names were given either because the sites on which Kharṭûm was built and the Island of Elephantine resembled the trunk and body of an elephant respectively, or because they were the market places for elephants' tusks. Between 1825 and 1880 Kharṭûm became a very flourishing city, and its inhabitants gained much wealth from the slave trade which was carried on briskly between the country south of Kharṭûm and Egypt, Turkey, and other northern countries. The Turkish officials, and most of the rich merchants, were in one form or another engaged in the trade, and the Pâshâs of Egypt were content to look on quietly so long as gold flowed into their pockets from the Sûdân trade. In 1884 General Gordon went to Kharṭûm to withdraw the Egyptian garrison, but very soon after the city was besieged by the Mahdî and his followers, and Gordon's position became desperate; famine, too, stared him in the face, for he distributed daily among the destitute in the city the supplies which would have been ample for the garrison. On January 15th, 1885, Faraḳ Allah, the commander of the loyal troops in the fort of Omdurmân, capitulated to the Dervishes, and the whole of that town received the Mahdî's pardon. During the whole of January Gordon continued to feed all the people in Kharṭûm; "for that he had, no "doubt, God's reward, but he thereby ruined himself and "his valuable men. Everyone was crying out for bread, and "the stores were almost empty" (Slatin, *Fire and Sword*, p. 338). On the night of January 25th, Gordon ordered a display of fireworks in the town to distract the people's attention,



Kharṭûm.

and in the early dawn of the 26th the Mahdists crossed the river, and, swarming up the bank of the White Nile where the fortifications had not been finished, conquered the Egyptian soldiers, who made but feeble resistance, and entered the town. Numbers of Egyptians were massacred, but the remainder laid down their arms and, when the Mahdists had opened the gates, marched out to the enemy's camp. The Dervishes rushed to the Palace, where Gordon stood on the top of the steps leading to the

List of the Buildings, etc., Numbered on the Map of Kharṭûm on opposite page.

1. Gordon College.
2. Supply Nazl.
3. Military Hospital.
4. Medical Officers.
5. Egyptian Officers' Club.
6. Medical Officer's House.
7. Civil Secretary's House.
8. Slatin Pâshâ's House.
9. Roman Catholic Mission and Church.
10. Sûdân Club.
11. Officers' Quarters.
12. Works Department.
13. The Palace.
14. Government Offices.
15. Post and Telegraph Offices.
16. Governor's House.
17. Financial Secretary's House.
18. Government Quarter.
19. Adjutant-General's Quarters.
20. Commandant's House.
21. Director of Forest House.
22. Director of Irrigation.
23. Sayyid 'Alî Morghânî's House.
24. Slavery Department House.
25. Coptic Church.
26. Grand Hotel.
27. Zoological Gardens.
28. Tennis Courts.
29. Murada, landing place.
30. Mûdirîyah Offices and Civil Courts.
31. Law Courts.
32. Bank of Egypt.
33. All Saints (British Church).
34. British N.C.O.'s Mess and Quarters.
35. Maronite Church.
36. Military School.
37. Site of Civil Hospital.
38. National Bank of Egypt.
39. Tramway Depôt and Petroleum Store.
40. Fish, Meat and Vegetable Market.
41. Mosque.
42. Greek Church.
43. Native Markets.
44. Christian Cemetery.
45. Municipal Stables.
46. Irrigation.
47.
48.

dîwân, and in answer to his question, "Where is your master, the Mahdî?" their leader plunged his huge spear into his body. He fell forward, was dragged down the steps, and his head having been cut off was sent over to the Mahdî in Omdurmân. The fanatics then rushed forward and dipped their spears and swords in his blood, and in a short time the body became "a heap of mangled flesh." The Mahdî professed regret at Gordon's death, saying that he wished he had been taken alive, for he wanted to convert him. As soon as Gordon was murdered, "the man who was anxious about the

safety of everyone but himself," Kharṭûm was given up to such a scene of massacre and rapine as has rarely been witnessed even in the Sûdân; those who wish to read a trustworthy account of it may consult Slatin Pâshâ's *Fire and Sword in the Sûdân*, p. 344 *ff.* On September 4th, 1898, Sir Herbert Kitchener and some 2,000 or 3,000 troops steamed over to Kharṭûm from Omdurmân and hoisted the English and Egyptian flags amid cheers for Her Majesty Queen Victoria, and the strains of the Khedivial hymn, and the thunders of the guns from the gun-boats. The rebuilding of the city began immediately after the arrival of the British, and the visitor can judge for himself of the progress made in this respect during the 23 years of peace which have followed its occupation by a civilized power.

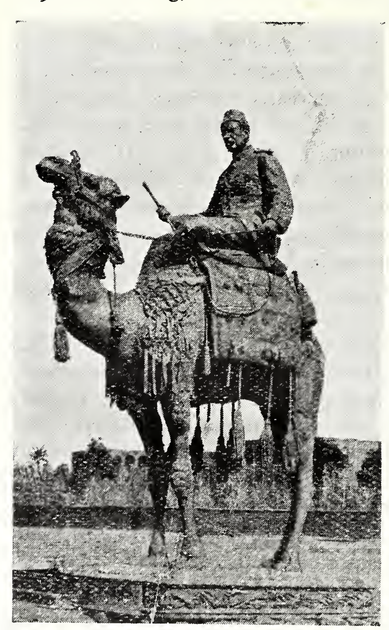
The most noticeable building in Kharṭûm is the **Palace of the Sirdar**, built by Lord Kitchener on the site of the old palace, on the steps of which Gordon was speared. The **British** and **Egyptian flags** float over its roof, and two sentries guard its door, one British and one Sûdânî; by the wall on each side stands a 40-pounder siege gun, which was brought up to shell Omdurmân. In the Palace Gardens the visitor should note the stone **Ram**, which was brought from Sôbah, a few miles up the Blue Nile on the right bank. It is a fine figure of the animal which at a very early period was regarded as the form in which the Nubian Åmen became incarnate. The **Coptic Church**, with its two conspicuous towers, is a handsome building, and its external arrangement and decoration are traditional. A mile or so upstream is the **Gordon Memorial College**, a stately edifice which stands on the left bank of the Blue Nile in the suburb of Bûrî. It was designed by Fabricius Pâshâ, and the works were carried out by Colonel Friend, R.E. It was opened by Lord Kitchener on the 8th November, 1902. The Principal is Mr. John W. Crowfoot, C.B.E., M.A. It contains: 1. Department of Manual Training and Technical Instruction, which was fully equipped at the expense of the Right Hon. Sir William Mather, P.C. († 18 Sept., 1918), and the Beauchamp Bequest has since been devoted to the extension of the Workshops. 2. An efficient analytical and bacteriological laboratory equipped with all the necessary apparatus at the expense of Mr. Henry Wellcome. 3. A Primary School and Boarding House. 4. A Training College. 5. A Military School. The director of the bacteriological laboratory devotes his life to the investigation of the causes of malaria, sleeping

sickness, etc., and of all the diseases which afflict man and beast in the Sûdân. Under his direction are issued from time to time reports which describe the work done and contain scientific papers on Sûdân diseases, medicine, magic, ethnography, religion, etc., and are absolutely invaluable to every student of African peoples, both past and present. A great deal of nonsense has been talked about what the Gordon College ought to do, and complaints have been made that its general curriculum is too utilitarian, but, as Mr. Currie said, it is essential for people to remember the character of the people with whom he is dealing. "A people whose "only ideal of higher education for centuries has consisted in "the study of grammatical conundrums and arid theological "and metaphysical disputations, surely needs the lesson that "all truth apprehended intellectually must first and foremost "be honoured by use before it can benefit the recipient." It is quite clear that the work of the College as an educational power, both from a theoretical and practical point of view, is proceeding on the right lines, and the great success already achieved speaks volumes in praise of the policy, judicious and cautious, followed by the various Principals of this great Institution.

Turning to the various educational units which taken together compose the Gordon College, Mr. Crowfoot speaks of the Primary School, which has been attended by 363 pupils; and the Upper School for the training of engineers and surveyors by 92 students. One hundred and thirty-two are on the roll of the Instructional Workshops, and the Boarding Houses had in them 279 boys in 1919.

The **Museum** in the Gordon College is well worth a visit, for the exhibits are arranged in a clear and instructive manner. The collection of birds is of great interest, and worthy of special note are the objects connected with Gordon, *i.e.*, the manuscript history of the Taeping Rebellion, the specimens of the paper money which he issued, the lithographic stones from which his proclamations were printed, etc. A beginning, too, has been made in forming a collection of Egyptian and Meroïtic antiquities which have been found in the Sûdân. A most valuable addition to the Museum is the bedstead, made of wood and raw hide, which was used by the Khalîfah 'Abdallâh during his rule in Omdurmân. In connection with ancient Sûdân antiquities, the traveller should note the large Meroïtic bas-relief, which Mr. Crowfoot brought from the chapel of a pyramid tomb of a Queen at Meroë in

1906. It has been rebuilt, and stands behind the War Office; its fellow is in the British Museum. Close to the embankment along the river front stands the Cathedral **Church of All Saints**, Kharṭûm. The foundation stone was laid on 7th February, 1904, by H.R.H. Princess Beatrice, and the building was dedicated to the Holy Trinity and to the memory of all the Blessed Saints. The building is in the form of a Latin cross, and lies east and west. The whole building is 190 feet long, the nave and chancel are of the same widths, viz., 26 feet, and on each side are narrow passage aisles, the total width over the walls being 42 feet. The arms of the cross are used as chapels, that to the north is dedicated to General Gordon, and is called the **Gordon Memorial Chapel.** The church was consecrated by the Bishop of London on January 26th, 1912, the 27th anniversary of the death of General Gordon. An interesting object in the town is the **Statue of General Gordon,** which has been set up in a prominent place in a main thoroughfare. It is a copy in bronze of the famous statue made by the late Mr. Onslow Ford for the Mess of the Royal Engineers at Chatham.



General Gordon Pâshâ.

The **Mosque,** which has been built by the Government at a cost of over £E.8,000, is a fine building, and is the largest in the Sûdân. The **Zoological Gardens,** which are under the direction of **Mr. Butler,** are not yet fully developed, owing to want of funds, but a good beginning has been made, and in a few years' time we may hope to see a thoroughly representative collection of Sûdân animals and birds living here in comfort.

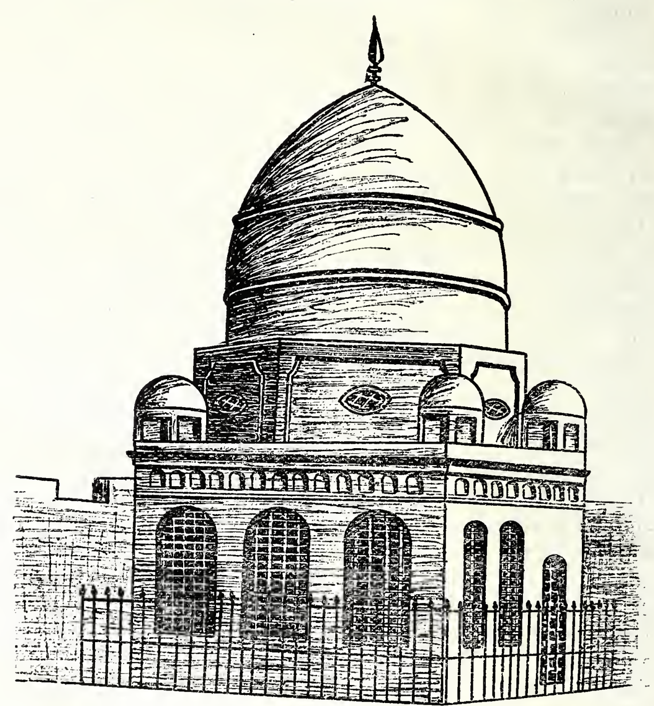
Climate.—The three hottest months of the year are April, May, and June; the three most pleasant months are August,

September, and October. The **coolest month** of the year is January; the **north wind** blows from November to April. Thunderstorms occur at intervals from May to October.

The town of **Umm Ad-Durmân**, or **Omdurmân,** is situated on the west bank of the Nile, about 200 miles south of the Atbarâ, and five miles from Kharṭûm, from which it is reached by steamer or by a steam ferry; it straggles along the river for nearly six miles, and the southern part of it, the oldest, is nearly opposite Kharṭûm. About 1792 it was a small village inhabited by brigands, and was of no importance till after the fall of Kharṭûm on January 26th, 1885. General Gordon built a fort there, which was called "Omdurmân Fort," and was under Faraḳ Allâh Pâshâ, and this, together with the fort on Tuti Island, formed the chief external defences of Kharṭûm. After the fall of Kharṭûm the Mahdî settled here and gave to the place the name **"Al-Buḳ'ah,"** *i.e.*, the "country" (of the Mahdî) *par excellence.* In 1885 the Khalîfah settled in Omdurmân, and declared it to be "the sacred city of the Mahdî"; on the other hand, the Mahdî said he looked upon the place merely as a temporary camp, for the Prophet had revealed to him that he should die in Syria, after conquering Egypt and Arabia. At first the town, which is nowhere more than three miles wide, was a collection of thousands of straw huts; the **mosque** was simply an oblong enclosure, with a mud wall, 460 yards long and 350 yards wide. This was replaced by a mosque built of burnt brick, whitewashed. The population of the town is at present about 50,000.

Adjoining the mosque was the **Khalîfah's House;** the latter contains several courts, all of which communicate, and the private apartments were near the mosque. He added a second storey to his house, with windows on all four sides, so that he might overlook the whole city; but he allowed no other two-storeyed house to be built. His house was furnished with brass and iron bedsteads with mosquito curtains, carpets, silk-covered cushions, curtains of rich colour and texture, and the panels of his doors were made of precious woods, carved and sometimes inlaid; his bath-room was lit from the roof, and he often enjoyed a bath in sesame oil, with the sunlight streaming upon him. Close to the bath was a small basin with brass taps that had been taken from Gordon's bath in Kharṭûm. To the east of the Khalîfah's house is that which belonged to his son, Ya'ḳûb. A granite tablet let into a

wall close by marks the spot where the Hon. H. G. L. Howard, special correspondent of the *New York Herald* and *Times*, was struck by the fragment of a shell and killed in September, 1898. The **Bêt al-Amânah,** or arsenal, is near Ya'ḳûb's house. The **Bêt al-Mâl,** or treasury, is on the north side of the city, close to the river; the **Slave Market** lay to the south of it, and the **Prison** is near the river, about the middle of the



The Mahdî's Tomb before the Bombardment of Omdurmân.

town. Formerly, gallows and cemeteries existed in several parts of the city, but these have been abolished; numerous wells, dug by forced labour, also existed. The walls of Omdurmân varied from 11 to 30 feet in height, and from 9 to 12 feet in thickness. The **Mahdî's Tomb,** or Ḳubbat al-Mahdî, was built by the Khalîfah Abd-Allah, and was 36 feet square and 30 feet high; its walls were 6 feet thick. Above this was a hexagonal wall, 15 feet high, and above this rose a dome,

40 feet high; thus the whole building was 85 feet high. On the corners of the main building were four smaller domes. It had 10 large arched windows and two doors, and in the hexagonal portion were six skylights; the building was whitewashed, and surrounded by a trellis-work fence. Over the Mahdî's grave was a wooden sarcophagus, covered with black cloth, and from the centre of the dome hung an immense chandelier taken from the old Government Palace at Kharṭûm. The Khalîfah made a pilgrimage to the Mahdî's tomb obligatory, and prohibited the pilgrimage to Mecca. The dome was badly injured in the bombardment of Omdurmân on September 2nd, and since the building was the symbol of successful rebellion, up to a certain point, and fanaticism, and had become a goal for pilgrimages and the home of fraudulent miracles, it was destroyed by charges of guncotton by the British. For the same reasons the Mahdî's body was burnt in the furnace of one of the steamers, and the ashes thrown into the river, and this was done on the advice of Muḥammadan officers and notables; the Mahdî's head is said to have been buried at Wâdî Ḥalfah.

There is little of interest in Omdurmân for the traveller from a historical or archæological point of view, but the bâzârs which are springing up in the northern portion of the town are worth a visit, for there trade has expanded, and chiefly on the old lines. The products of Dâr Fûr and Kordôfân are being brought north, and are exchanged for the products of Europe in the shape of scents, scented soaps, small mirrors, beads, pins, needles, nails, and a hundred other useful articles of daily life. The silver work of Omdurmân is particularly beautiful and interesting. The workers in metal are finding more and more work each year, and the leather dressers and workers are beginning to do a good trade. In Kharṭûm itself business is increasing, and under the just and equitable government which the country now enjoys will continue to do so.

A pleasant afternoon's ride may be taken to **Kerreri** and **Gabal Sûrḳab,*** about seven miles north of Omdurmân. At the former place the Egyptian cavalry, the British Horse Artillery, and the Camel Corps were posted on September 2nd, 1898; they were charged at 6.30 a.m. by the Dervishes, who came on in two bodies and were supported by Bakkârah horsemen, but by 8 a.m. the greater number of them were killed,

* Commonly called Gabal Surgham.

and the remainder retired to the hills about three miles distant. The body of Dervishes led by the Khalîfah's son Ya'ḳûb, Shêkh ad-Dîn, numbered 10,000. On the night of September 1st the Khalîfah bivouacked his army of some 40,000 men behind Gabal Sûrḳab, and the next morning divided his force into three sections; one of these attacked the front and left of the Sirdar's position, the second moved on to the Kerreri Heights with the view of enveloping his right, and the third, under the Khalîfah himself, remained behind Gabal Sûrḳab ready to fall on the Sirdar's flank as he advanced to Omdurmân. About 9.30 General Macdonald found himself faced by a strong body of Dervishes, some 20,000 in number, and commanded by the Khalîfah himself; he at once halted, and deployed into line to the front to meet the attack. Whilst he was receiving and disposing of this attack, he suddenly found that the Dervishes under the Shêkh ad-Dîn and 'Ali Wâd Helu were advancing upon him from the Kerreri Heights, and that both his front and rear were threatened, and that he was also in danger of being outflanked. He at once moved some of his battalions to the right, and deployed them into line, so as to form with the remainder of his brigade a sort of arrowhead, one side facing north and the other west. With the help of Lewis's and Wauchope's brigades this second and determined attack was crushed, and "the masterly way in which Macdonald handled "his force was the theme of general admiration." Maxwell's and Lyttelton's brigades pushed on over the slopes of Gabal Sûrḳab, driving before them the remainder of the Dervish forces, and cutting off the retreat on Omdurmân. The battle was then practically over. About 10,800 Dervishes were counted dead on the battlefield, and for some time after the battle groups of skeletons could be seen marking the spots where they were mown down by the awful rifle fire of the British and Egyptian troops, and the shell-fire from the gunboats. On the day following the battle numerous parties of British and Egyptian soldiers were told off to bury the dead, and of the 16,000 wounded Dervishes from 6,000 to 7,000 were treated in the hospital which Hassan Effendi Zaki improvised in Omdurmân. Visitors to the battle-field of Sûrḳab-Kerreri may even to this day find weapons and small objects belonging to those who were killed there.

The **ruins of Sôbah** are well worth a visit in the afternoon. They lie on the right bank of the Blue Nile about 10 miles to the south-east of Kharṭûm, and they can be easily reached by

train and ferry from the station at Sôbah on the left bank of the river. The area of the old town, which was the capital of the kingdom of 'Alwah, was very large, and contained many churches.

EXCURSIONS.

1. **Kharṭûm to Sennaar on the Blue Nile.*** The length of the Blue Nile from the cataracts at Ruṣêreṣ to Kharṭûm is, according to Captain H. G. Lyons, 639 kilometres, or nearly 400 miles, and the average width of its channel is about 1,650 feet. From Ruṣêreṣ to Lake Ṣânâ, a distance of 563 miles, the river is called the **'Abâi.** From the source of the Blue Nile to Lake Ṣânâ is a distance of 150 miles; therefore the **total length** of the Blue Nile is 1,113 miles. The source of the Blue Nile was discovered by James Bruce in 1760. The river is lowest in April; signs of the coming flood appear in May, but the real rise does not begin until June. Its maximum is reached in August. The velocity of its current is 3 miles per hour in February, and in flood it is double that rate. In the winter its water is very clear, and is said to be of a "beautiful limpid blue," but in flood the water is of a deep chocolate colour. In flood the Blue Nile is charged with an immense quantity of matter in suspension, formed by the sweepings of the leaf mould of the forests, and the scourings of the volcanic and metamorphic rocks of the Abyssinian plateau and spurs. The chief crop of the Blue Nile is "dhura" (*sorghum vulgare*); a little cotton is grown on the foreshore of the river, sugar and millet are cultivated round about Sennaar. Other crops are lubya, sesame, termis, lentils, and wheat and barley; no tobacco is now grown. The sheep of the country have no horns, and have hair instead of wool.

At mile 10, on the east bank of the river, is **Sôbah,** where stood the ancient capital of the kingdom of 'Alwah. The province is said to have contained 400 churches, and it lay to the east of Tuti Island; its inhabitants were Jacobite Christians, and owed ecclesiastical allegiance to the Patriarch of Alexandria.

* Called the "Ασταπος" by Strabo. The Abyssinians call the portion of the river which flows through their country 'Abây ዐባይ ; or 'Abâwî ዐባዊ : Astapos is compounded of the old word *ast* or *asta* "river," and the old Ethiopian name 'Abây, or 'Abâi.

There was a considerable number of monks in the neighbourhood, for monasteries existed both in the town and on the river. The chief church in the town was called "Church of Manbalî." Colonel Stanton, Mûdir of Kharṭûm, and the writer examined the ruins at Sôbah in 1903, and came to the conclusion that the chief ruins there were those of a large Coptic church, which had existed until the Middle Ages, and that some of the granite pillars in it had been obtained from a temple of the late Ptolemaïc or Roman Period. An examination of a few of the graves there proved that men, probably monks or officials of the church, had been buried within its walls, and the construction of the tombs suggested the class of Coptic church tomb which is usually associated with the seventh or eighth century of our era. Ruins of some of the stone gateways of the ancient city exist in several places not very far from the ruins of the church. A very comfortable rest-house has been built at Sôbah and at other places up the Blue Nile for the officials of the Egyptian Government, and travellers will no doubt be allowed to make use of them.

At mile 28, on the west bank of the river, is **Maggad**; it is a large village, the people of which live in beehive-shaped straw "tukls" instead of mud-walled and flat-topped dwellings. At mile 55, on the west bank of the river, is **Kâmlîn**, a village perched on a high gravelly ridge, and inhabited by Danaḳlah and Gaalîn Arabs. Between Maggad and Kâmlîn there is low jungle on the east bank, and open country on the west bank. There are no trees outside the thorny belt, and there are no date palms. At Kâmlîn are the remains of the old indigo vats which Ismâ'îl Pâshâ built when he attempted to introduce the cultivation of the indigo plant into the Sûdân. The headquarters of a modern administrative division are here. At mile 82, on the east bank, is **Rufâ'a,** inhabited by Shuḳrîyah Arabs; it is said to be the second largest town on the Blue Nile. Opposite to Rufâ'a is the town of Arbagi, the Herbagi of Bruce, where there are remains of buildings of an old Meroïtic kingdom. At mile 94, on the western bank, is **Massalamîyah,** inhabited by the Halawî Arabs, and the seat of an administrative official; the village was in ruins in 1899, and its people were thought to have favoured the Khalîfah's rebellion. At mile 102, on the east bank, is the military station of **Abû Harâz,** and from this point onwards both banks are covered with jungle, which might even be called forest. To the north of the camp lies the old village, called "Abû Harâz al-Baḥrî,"

and the columns and minarets of an old brick mosque which the Mahdî destroyed are to be seen here. At Abû Harâz a Nilometer has been erected. The old trade route to **Ḳaḍâref,** 150 miles distant, starts from here; it runs by the bank of the Rahad River for 40 miles, to 'Ain al-Luêga, passes the well of Al-Faw in an open plain at mile 80, and then proceeds due eastwards for 70 miles more. Ḳaḍâref has been called the granary of the Sûdân. **Ḳallâbât,** the frontier town between Abyssinia and the Sûdân, is 94 miles from Ḳaḍâref and 364 miles from Kharṭûm. The old fort of Ḳallâbât stands on a hill about 150 feet above the village.

About five miles above Abû Harâz the river **Rahad** enters the Blue Nile on the east bank, 122½ miles from Kharṭûm.

At mile 109, on the west bank, is the large and important town of **Wâd Madani,** which has quite taken the position formerly occupied by Sennaar. The **railway** was brought here in 1910. North of the town are the remains of a mosque, built by the founder of the Madani tribe, but destroyed by the Mahdî; the tomb is still standing. The population of Wâd Madani is about 18,000, and consists of Fûng and Hamag Blacks, and numbers of several tribes of Arabs; this town is the seat of a governor, and the telegraph runs through it. There is a market twice a week, Mondays and Thursdays; vegetables of many kinds are abundant, and a brisk trade is done in soap, sesame oil, and native leather goods, and in European wares, *e.g.*, beads, mirrors, cutlery, coloured cottons, Manchester goods, sugar, tobacco, &c. From mid-June to mid-September there is a fortnightly steamer service between Wâd Madani and Ruṣêreṣ. The time taken is 6 days upstream and 4 down. There is a tug service between Sennaar and Abu Na'âmah, 94 miles upstream, and when cargo offers this service is extended both to Ruṣêreṣ and Wâd Madani. At mile 140 is **Shibergah**; the scenery is wild and beautiful, troops of baboons and small grey monkeys are to be seen, the woods are filled with birds of bright plumage, and the forest trees are covered with creepers. At mile 168, on the east bank, is **Sennaar,** with about 25,000 inhabitants, formerly the capital of a province of that name. The country has always been extremely fertile, for large quantities of rain fall each year; the production of wheat and barley has therefore been very considerable, and large herds of cattle can always find grazing ground. The inhabitants in former years were well-to-do and have contributed large sums to the revenues of the Khedives of

Egypt. The Mahdî sent a force to take the town of Sennaar, and the inhabitants were besieged for some time; they were, however, relieved by Sanjak Ṣalîḥ Wâd al-Mekḥ and an army of the Shaiḳîyah Arabs. Later the Mahdî sent 'Abd al-Karîm against it, but he failed to take it. In 1885, however, the garrison was forced to surrender to Wâd An-Nagûmî, and the fall of the town was a signal for the most brutal atrocities and cruelties. The Dervishes slew almost every man they found, they burned large quantities of stores and crops, and all the young women were sent to the Khalîfah. The town has never recovered from the blow dealt it at that time, and now Wâd Madani has taken its place. Formerly the Dinder River district was famous for its cotton, and attempts are now being made to revive the cotton industry on a large scale. At Sennaar a Nilometer has been erected. **Sengah**, the capital of the Sennaar Province, stands on the east bank. The town was founded by 'Abd Allah Wâd Al-Ḥassan in 1896.

At mile 118, on the west bank, is **Al-Barriab**, and three miles further up the **Dinder River** enters the Blue Nile from the east. The Dinder rises in the same country as the Rahad, and flows parallel with it for about 65 or 75 miles.

About mile 180 is **Karkôg**, and at mile 382 is **Ruṣêreṣ**, which is famous as the scene of the great fight wherein Colonel Lewis and 400 soldiers of his gallant 10th battalion defeated Aḥmad Fadîl with some 3,000 of his followers in 1898. Above Ruṣêreṣ the course of the Blue Nile is to the south-east; above Kamâmîl it bends round and turns nearly due east for about 40 miles. For over 100 miles it runs towards the south-east, and then bends round to the north, and eventually the valley down which the river flows is seen to open out into **Lake Ṣânâ.** From Ruṣêreṣ upwards the name of the Blue Nile is the **River 'Abâi.** This river leaves the lake by a series of channels and light rapids, which unite in a fine broad stream nearly 700 feet wide; it then has a moderate slope for some miles, when it becomes narrower and more rapid. About 24 miles down is the old **bridge** which the Portuguese built over the falls at **Agam Deldi**; it is the only bridge over the Blue Nile in its whole length. The area of **Lake Ṣânâ** is about 3,000 square kilometres. It receives 6,572,000,000 cubic metres of water in the year; it loses 3,641,000,000 by evaporation, and 2,924,000,000 are discharged in the 'Abâi, or Blue Nile.

2. **Kharṭûm to Kosti and Al-'Obêd ('Ubêd).**—The traveller proceeds from Khârṭum to Sennaar (already described) and continues his journey in the train. On leaving Sennaar the railway turns to the south-west, and enters the great and fertile triangular area between the White and Blue Niles, which is called **Al-Gazîrah,** Experiments already made in growing cotton there suggest that the Gazîrah will become the finest cotton-producing district in the Sûdân. After passing Gabal Môyah, Gabal Dûd, and Gabal Bint, we reach **Ḥillat 'Abbâs,** 230 miles from Kharṭûm. Passing over the fine iron bridge, which has seven spans, each of about 250 feet, and a central revolving span of about 240 feet, we come to **Kosti,** 235 miles from Kharṭûm, on the west bank of the White Nile. In recent years Kosti has become an important market for goods from the South, and the volume of trade is increasing annually.

3. **Kharṭûm to Kosti**—(Ḳôz Abu-Gûmâ') by river. This journey occupies three days. At mile 33 Gabal Auli, famous for its limestone quarries, is passed. At mile 130 we reach **Ad-Duwêm,** on the west bank, the capital of the White Nile Province. Since the growth of Al-'Ubêd this town has lost much of its importance, but it was at one time the central market for the products of Dâr Fûr and Kordôfân. At mile 150 we come to Abba Island, famous in the annals of the Dervishes as the dwelling-place of Muḥammad the Mahdî. At mile 200 is **Ḳôz Abu Gûma',** on the east bank, opposite Kosti.

4. From **Kharṭûm to Rejab** there is a fortnightly service of postal steamers. The time usually taken is 14 days up stream and 11 days down. At Rejaf connection is made with the overland routes to the Congo, and to Uganda and East Africa.

5. From **Kharṭûm to Mashrâ ar-Reḳ,** 765 miles, there is a monthly postal service; the time usually taken is 11 days up stream and 9 days down. From July to September, when the road to Wâw (107 miles) is impassable, these steamers only ply as far as the Jûr river, and smaller steamers go thence to Wâw.

6. From **Kharṭûm to Gambelah,** on the Sobat, 874 miles, there is a monthly steamer from May to the end of November; the time usually taken is 13 days up stream and 10 days down.

7. Kharṭûm to the Great Lakes.—The length of the Nile between Kharṭûm and its source at the Ripon Falls is estimated at about 1,560 miles.

From Kharṭûm to Lake Nô the Nile is called the **Baḥr al-Abyaḍ**, or "**White Nile.**"

The following are the principal places passed between Kharṭûm and **Duwêm*** :—

Kalakla. Mile 8.
Shêkh Salîm. Mile 11.
Gemmuêya District. Mile 17.
Hanêk. Mile 27. Arda Island begins.
Gabal Aulî. Mile 28.
Gabal Mandara. Mile 32.
Gabal Barîma. Mile 40.
Abû Ḥagar. Mile 52.
Ḳaṭêna. Mile 55. Christian antiquities are said to have been found here.
Salahîyah. Mile 59.
Garâzî. Mile 76.
Wâd Shabai. Mile 82.
Tura As-Sûḳ, Zîf. Mile 100
Dabasi. Mile 108.
'Amâra, Gabal Arashkôl. Mile 109. Manîr Island.
Shabasha. Mile 112.
Ghôbêsha. Mile 121.

Between Kharṭûm and **Ad-Duwêm** the Nile banks are uninteresting; the river is very wide, sometimes as much as a mile and a half. Water-fowl are seen in large numbers, and on the banks and mud flats crocodiles abound. Ad-Duwêm is about 130 miles above Kharṭûm, and a British official resides here; a Nilometer has been erected, and the river levels are recorded daily. The business done here is chiefly in gum, which is brought from the interior, packed on camels in large bales covered with matting made of *Lahaw* grass. Here the gum is shipped by steamer or native boat to Omdurmân, where the merchants pay the Government duty. The transport service to Al-'Ubêḍ, the capital of Kordôfân, starts from this point. An action was fought here between the Egyptians and the Mahdî on August 23rd, 1883.

* For the details of this section I am greatly indebted to Sir William Garstin's *Report on the Upper Nile Basin*, London, 1904; and Count Gleichen's *Handbook*, 2nd edition, London, 1905.

Ḥassanîyah Island. Mile 130.

Umm Gâr. Mile 138.

Mashrat Al-Ḥillah. Mile 143. Pieces of **Sadd** (Sudd) begin to appear here.

Kawwah, on the east bank, 146 miles from Kharṭûm, is a large village, with Government offices, and a gum depôt and a small grain store. The district is showing signs of reviving prosperity, and new villages are springing up everywhere.

Mashrah Shaggara. Mile 154.

Tomb of Shêkh Nûr Aṭ-Ṭayyib. Mile 162.

Shawwâl. Mile 163. North end of Abâ, or Abba, Island.

Marabîyah. Mile 174.

Mahdî's Birth-Place. Mile 175.

Zenûbah. Mile 191. South end of Abâ Island.

Ḳôz Abû Gûmâ‘, on the east bank, about 195 miles from Kharṭûm, is a Government station, and possesses a telegraph office. Opposite this place is the southern end of **Abâ Island,** which is 28 miles long, and divides the river into two channels. This island is famous as the dwelling-place of Muḥammad Aḥmad, "the Mahdî," and the ruins of his house are still pointed out. On the west bank of the river, about 16 miles north of Ḳôz Abû Gûma‘, is Fashi Shoya, wherefrom Sir F. R. Wingate started in 1899 on the expedition which ended in the defeat and death of the Khalîfah at Umm Dabrêkât. The **bridge** over the Nile was completed in 1910.

‘Abbâsîyah Gadîdah. Mile 200. Colony of old Sûdânî soldiers. Near this place begins the home of the true Sûdânî or "Black" Tribes.

At **Abû Zêd,** mile 208, is a ford; steamer traffic is at times wholly interrupted here. Hippopotami begin to be seen here.

Masran Island (North End). Mile 209.

Danko Shûsh. Mile 213.

Danko Salîm. Mile 227.

Masran Island (South End). Mile 236. Here the rocks run right across the river.

Gabalên. Mile 238. Here is the boundary between the White Nile and Upper Nile Provinces. On the eastern bank are five granite rocks, the highest being 600 feet high. The ruins of the "Dêm," or camp, of Aḥmad Faḍîl are still visible here. Here the *serût* fly makes its appearance.

Bulli Island. Mile 247.

Gamûs. Mile 276. South end of Bulli Island.

Agang. Mile 296.

Mashrat Ar-Renk. Mile 298. An action was fought here between the Egyptians and Dervishes on September 15th, 1898. The Dervish camp was bombarded and taken, and a steamer captured. A British Inspector resides here. Post and telegraph station. The village is about five miles inland.

Khôr Dulêb. Mile 300.

Warrit, or Loingwin. Mile 310. Here there is a ford.

Umm Hadêdah. Mile 320. Elephants come here at night to drink.

Leungtom Al-Wat. Mile 326. Wâd Dakona Island ends (16 miles long).

Dabbah Az-Zawîyah. Mile 331.

Anok. Mile 335.

Dabba Ibrâhîm Sharak. Mile 344.

Dabba Abû Têba. Mile 350.

Gabal Aḥmad 'Aghâ. Mile 353. This hill is 250 feet high.

Edor Gamoia. Mile 357.

Gamûs. Mile 363.

Alumbal. Mile 367.

Rûm Umm Gursân. Mile 372.

Ardêb Al-Maryâm. Mile 378.

Mashrat ar-Rûm, and **Terêti.** Mile 380.

Kâkâ and Debêk. Mile 391. A collection of Shilluk villages.

Ajôk. Mile 397.

Kâkâ (Ḥillat Al-Niam-Niam). Mile 404.

Milût. Mile 413.

Demtemma. Mile 416.

Shêkh Dalal. Mile 418.

Fâ-Shôda, or **Kôdôk,** at mile 459, is situated on a small peninsula, which juts out into the river, and is connected with the ridge by a narrow strip of land; on three sides of the peninsula is a deep swamp. A long, low island, nearly a quarter of a mile long, stretches in front of the station. Kôdôk is on the west bank, in lat. 9° 53′ N., and long. 32° 8′ E. The channel between the island and the mainland dries up in hot weather, and water has to be fetched from a long distance. The Mekh, or king, of the Shilluk tribe, lives near Kôdôk, and many of the roads from Kordôfân converge here; in the Mahdî's time it was a place of some importance, but it is not, and never can be, a healthy spot, because of the prevalence of fever. In the dry season (March) the temperature ranges from 98° to 105° in the shade. Kôdôk is

the name now given to the place which became so famous in 1898 as **Fâ-Shôda.** This miserable place was occupied by Major Marchand on July 10th, 1898, and was attacked on August 25th by the Dervishes, who were, however, repulsed. On September 19th Lord Kitchener landed the Egyptian troops, and hoisted the Egyptian flag on a ruined bastion of the fortifications, and had it saluted with all ceremony by the gunboats; thus he reoccupied the Egyptian territory which had been seized by the Dervishes. On November 4th Lord Salisbury announced that France had decided to withdraw her gallant soldier from Fâ-Shôda, and soon after Major Marchand continued his journey into Abyssinia, and his officers travelled northwards by way of the Nile. Kôdôk is the Headquarters of the Fâ-Shôda Province, and has a telegraph station and a post office. Major Marchand's guns and buildings are still to be seen, and his garden is kept up. The place is infested by "millions of mosquitoes," and it has been aptly described as a "damp hell for men, and a heaven for mosquitoes."

Lûl, at mile 511, is one of the stations of the **Austrian Roman Catholic Mission.** The Mission is prosperous, and good work is being done by the Fathers.

Tawfîḳîyah, mile 518, on the east bank of the river, was the station where Sir Samuel Baker passed the whole summer of 1870. The cantonments cover 10 acres of land, and the Commandant's house is at the south end of the station; it is a very unhealthy place, and in 1900 about 50 per cent. of the small garrison were incapacitated from fever.

Five miles above Tawfîḳîyah the **Baḥr al-Aṣfar,** or Yellow River, commonly known as the **Sobat,** joins the Nile on the eastern bank. The colour of the Sobat water, when in moderate flood, is a milky white, and in full flood a pale brick red; the effect of the mingling of this water with that of the White Nile is remarkable, and is observable some distance down stream. The tributaries of the Sobat River are the Adura, Baro, Upeno, Birbir, Nigol, Aluro, Gelo, Akobo, Agwei, Pibor, and Khôr Filus. About 173 miles from the junction of the Sobat with the Nile is **Nâṣer,** where there is a Government post. At **Dûlêb Hill,** about five miles up the Sobat River, the **American Presbyterian Mission** of Egypt established a station under Mr. and Mrs. Giffen and Dr. and Mrs. McLaughlin. The Mission is manifestly conducted on those sound, common-sense principles which are strongly characteristic

of American mission work in Egypt. No parade is made of religion. In fact, the work of conversion, properly so called, can scarcely be said to have commenced. By kindly and considerate treatment, the suspicions which are so easily aroused in the minds of the savages are allayed. Lord Cromer found there considerable numbers of Shilluks, men and women, working happily at the brick-kiln which Mr. Giffen had established in the extensive and well-cultivated garden attached to the Mission. Cotton, apparently of good quality, has already been produced. The houses in which the members of the Mission live were constructed by Shilluk labour.

At mile 521 is **Tonga,** and at mile 547 is the mouth of the **Baḥr az-Zarâfah** or "**Giraffe River.**" This river is about 205 miles long. At mile 560 is **Tonga**, an Austrian Mission station. At mile 600 is the **Maya Signora,** which was first explored by the brave and philanthropic lady **Alexandrine Tinne.** At mile 612 **Lake Nô** is entered. At the western end of Lake Nô is the mouth of the **Baḥr al-Ghazâl** or **Gazelle River.** The principal stations now occupied on the latter river are Wâw, Rumbek, Dêm Zubêr, Shâmbî, Shak Shak, Tonj, Mashra ar-Rek. A passage through the ṣudd of this river was cut between Mashra ar-Rek and Wâw by the late Lieutenant Fell, R.N. Lake Nô is situated in lat. 9° 29′ N., and is the reservoir for all the watershed between the Congo and the Nile, *i.e.*, lat. 5° and 8° N., and long. 24° and 30° E. The chief affluents of the Baḥr al-Ghazâl, or "Gazelle River," are the Rohl, the Jau, the Tonj, the Baḥr al-Arab, the Baḥr al-Ḥomr, and the Jûr. On the "Ṣadd," *see* the chapter on the Nile (p. 62).

From Lake Nô to Lake Albert the Nile is called the **Baḥr al-Gabal,** *i.e.*, the "Mountain River," or **Upper Nile.** On leaving Lake Nô the **Ṣadd Region** is entered. Most of the blocks of ṣadd which obstructed the waterway have now been removed. At mile 139 from Lake Nô is **Ḥillat An-Nuwêr** or Aliab Dok.

At mile **253 from Lake Nô** the northern end of the **Shâmbî Lagoon** is reached; it is about five miles long by rather more than one mile wide. On the west bank of this water is the post of **Ghâba Shâmbî,** or the "Forest of Shâmbî," in lat. 7° 6′ 30″ N.; it is now an important place, for it is the Nile-outpost of the Baḥr al-Ghazâl Province. The scenery is mournful in the extreme, endless tracks of swamps extending in all directions. Hippopotami abound here.

Abû Kuka, at mile 293, is situated in lat. 6° 54′ N. here the papyrus-covered marshes stretch in all directions. **Kanîsah,** *i.e.*, the "Church," at mile 304, is in lat. 6° 46′ N. The place has obtained this name from the **Austrian Mission Station** which was located here for many years. The church and buildings were on the east bank, but all traces of them have disappeared. The Mission was founded by Father Knoblecher in 1849, assisted by Fathers Beltrame, Dvorak, Morlang, Rylls, Ueberbacher, Vinci, and eleven others, all of whom, save two, died of the fever of the country. The Mission was abandoned in 1864 or 1865 because of the deadly effects of the climate.* Kanîsah is the principal wooding station for steamers making the journey through the ṣudd. The forest here is very thick, and extends to the Rohl River 65 miles distant.

At mile 344 **Lake Powendael** is passed, but is separated from the river by a belt of swamp. At mile 360 and round about, hippopotami are very numerous; the natives live by their slaughter and by fishing. Here, too, the Ṣadd district begins, although the real swamps are not reached until south of Ghâba Shâmbî; papyrus, ambatch, etc., take the place of the grasses which are found more to the north. At mile 380 the swamps end, and the forest comes down to the river.

At mile 384 is **Bôr,** or **Bôhr,** on the east bank, in lat. 6° 12′ 46″. Here the forest stands back from the river, and a number of Dinka villages are seen, and a few Dulêb palms. The village of Bôr is well kept, neat, and clean. The circular, mud-plastered huts have conical thatched roofs; each has a small door through which the inhabitants crawl. Six miles upstream is the "Dêm" or camp and fort so long held by the Dervish chief Arabi Dafa'a Allah. It lies on the east bank, the river sweeps round on two sides, and on the other two is a mud wall. The enclosure measures 2,300 feet by 1,300 feet.

In October, 1905, the **Church Missionary Society** sent

* "The mission-station consists of about twenty grass huts on a patch of "dry ground close to the river. Herr Morlang acknowledged, with great "feeling, that the mission was absolutely useless among such savages; that "he had worked with much zeal for many years, but that the natives were "utterly impracticable. They were far below the brutes, as the latter "show signs of affection to those who are kind to them; while the natives, "on the contrary, are utterly obtuse to all feelings of gratitude. . . . "The Mission having given up the White Nile as a total failure, Herr "Morlang sold the whole village and mission-station to Khurshîd 'Aghâ "this morning for 3,000 piastres, £E.30! . . . . It is a pitiable sight to "witness the self-sacrifice that many noble men have made in these fright- "ful countries without any good results." (Baker, *Albert N'yanza*, p. 53.)

out a party of missionaries to establish a station at Mongalla. The party consisted of the Rev. F. B. Hadow, M.A., the Rev. A. Shaw, B.A., the Rev. A. M. Thom, M.A., Mr. E. Lloyd, B.A., B.C., and Messrs. J. Comely and R. C. J. S. Wilmot, Industrial Agents, and they reached Mongalla on January 8th, 1906. Mongalla is a purely military post, and acting on the advice of the Mûdir of the Province, Cameron Bey, and of the Commandant, Captain Logan, the party decided to make their headquarters at Bôr, and their boat was therefore towed down the river on January 18th. At mile 398 is the **Military Post of Bôr,** which is to be the headquarters of the new Administrative District of Bôr. At mile 431, on the east bank, is a magnificent tree, which forms a prominent landmark. The scenery here is extremely picturesque. **Kîrô,** at mile 460, on the west bank, is in lat. 5° 12′ or 5° 13′. It is a picturesque place, surrounded by forest, in which are some fine trees. Kîrô, Lâdô, and Raggâf are the principal Nile stations of the Belgian Enclave. The huts at Kîrô are well built, and the cantonment is surrounded by a wooden stockade, armed with Krupp guns. On the island opposite are many Paw-Paw trees. The Belgian garrison consists of 400 men, and the soldiers are largely recruited from the cannibal tribes. The settlement has a paddle steamer, the "Van Kerckhoven," and several steel boats. Two or three miles upstream, on the western bank, is **Lâdô Mountain. Mongalla,** on the east bank, at mile 474, marks the limit of the Sûdân Government on the White Nile. A British Inspector and Police Officer are stationed here, and all the Government offices, hospital, barracks, etc., are built of brick. **Lâdô,** at mile 495, on the west bank, is in lat. 5° 1′ 33″ N. It was the capital of the Equatorial Provinces of Egypt, and here Emin Pâshâ ruled. The greater number of the houses are of burnt brick, and have conical roofs. The place is desolate and swampy, and fever is rife. **Gondokoro,** at mile 504, on the east bank (lat. N. 4° 54′ 29″, long. E. 31° 43′ 46″), has been much improved in recent years; the roads are good and the jungle has been cleared away. The English officials have comfortable houses. The ground upon which the Austrian Church and Mission stood has been eaten away by the river, and it is thought that the rest of the settlement will disappear for the same reason. The Mission Station had to be abandoned, for the Bârî tribe and the climate together made the lives of the missionaries unbearable. The Nile gauge set

up in 1901 was carried away, but a new one has been set up near the collector's house. At mile 513 is **Ibrâhimîyah**; from this place the hills of Kurrak and Kajur are seen some miles inland. At mile 516 is **Lungwi Mountain,** on the east bank. Near this place are the Belgian settlement of **Raggâf** and **Raggâf Hill,** or "Earthquake Mountain." The hill is a perfect cone, and was once, probably, a volcano. The Belgian Fort is on the north of the hill, and in the plain the Belgians defeated the Dervishes. There are no trees here, and the district is subject to earthquakes. The houses have thatched roofs and verandahs. At mile 519 is the **Kît River,** which enters the Nile on the east bank; it rises in the Lumoga Mountains, near the Atappi, in lat. 3° 53′, and is about 90 miles long. The Arabs call it Baḥr Ramlîyah, or "Sandy River," and its upper reaches are called "Gomoro." At mile 525 is **Fort Berkeley,** which is garrisoned by retired Sudanese soldiers; it is merely a collection of straw huts within a zarîba. At mile 526 are **Baddên Island** and **Baddên Rapids;** there are no other Rapids between this place and the Sixth Cataract at Shablûka. Upstream a mile or two the **Peki** and **Lagogolo Rivers** enter the Nile on the east side. At mile 537 the **Khurru** torrent enters the Nile on the east side; two miles above is the village of **Armoji.** At mile 546 are the two granite hills of **Kiri**; the Fort of Kiri was on the western hill. Here begin the **Makedo Rapids.** A mile or so above the **Kweh River** enters the Nile on the east bank. At mile 551 is **Kaniye,** a collection of villages; near this place the **Niumbe River** enters the Nile on the east side. At mile 566 the **Gougi Rapids** begin; they are 11 or 12 miles long. At mile 569 is the **Karpeto River.** At mile 571 is the village of **Lakki.** At mile 581 are the **Umi River** and the Madi village of **Kuio.** At mile 584 is **Labori,** Emin Pâshâ's old fort. At mile 587 is the Madi village of **Mougi.** At mile 599 is **Gabal Kurdu,** in the Kirefi country, where there are herds of elephants.

Near this place the **Asua River** joins the Nile, about 100 miles from Gondokoro. At mile 608 is **Nimuli,** the headquarters of the Nile Province, with an Assistant Commissioner and a Commandant of the military force stationed on the Nile. Close by is the Unyami River, and to the north-east are the Arju Mountains. Here the rapids of the White Nile begin. A little below Nimuli the **Fola Rapids** begin, and these constitute the most formidable obstacle to the course of the White Nile in

the whole of its course between Albert N'yanza and Kharṭûm. Sir W. Garstin says that it is doubtful "whether in the cataracts "between Shabluka and Aswân any such demonstration of "the force and power of water is to be seen. The main "volume of the river passes down the right-hand or eastern "channel. Except in flood the amount of water in the channel "to the left of the central island is insignificant. The scene from "the rocks on the right bank is an extraordinary one. At the "south end of the islands the rapids commence in two or "more falls with a drop of some five or six mètres, and a total "width of about 60 mètres. These break the surface of the "river into a sheet of foam, but it is only after they have been "passed that the real struggle commences. Below the falls "the stream rushes down an extremely narrow gorge with a "very heavy slope, enclosed between vertical walls of rock. "This can best be compared to a gigantic mill-race or water-"slide 100 mètres in length. The water tears through this "channel in a glassy, green sheet with an incredible velocity. "The width of this 'gut' is nowhere more than 16 mètres "across, and in places it is less! What the depth of the "water may be it is impossible to say. At the foot of this "race the river leaps into a deep cauldron or pot, which it fills "with an apparently boiling mass of white water, lashed into "foam and affording a remarkable example of the rage with "which water attacks any serious obstacle in its course. The "length of this cauldron is only 50 mètres, but its width is "not more than 12 mètres across! Immediately below this "the channel widens out to some 30 mètres, and eventually "more, while the river thunders down, in a series of rapids, for "a considerable distance. It is difficult in words to give even "a faint idea of this unique scene. The best photographs do "not satisfactorily reproduce it. They cannot show the colouring "of the picture or really depict the wild beauty of the surround-"ings. On either side of the channel are vertical walls of "rock from 7 to 10 mètres above the water. These rocks are "polished like black marble, and stand up in vertical ribs, "indicating how severe must have been the dislocation of the "strata at the time when they were originally forced to the "surface. In many places they are hidden by masses of "vegetation, and creepers hang down in graceful festoons, "forming a curtain resembling green velvet. The inky black-"ness of the rocks and the variegated greens of the foliage "contrast vividly with the seething mass of white water, above

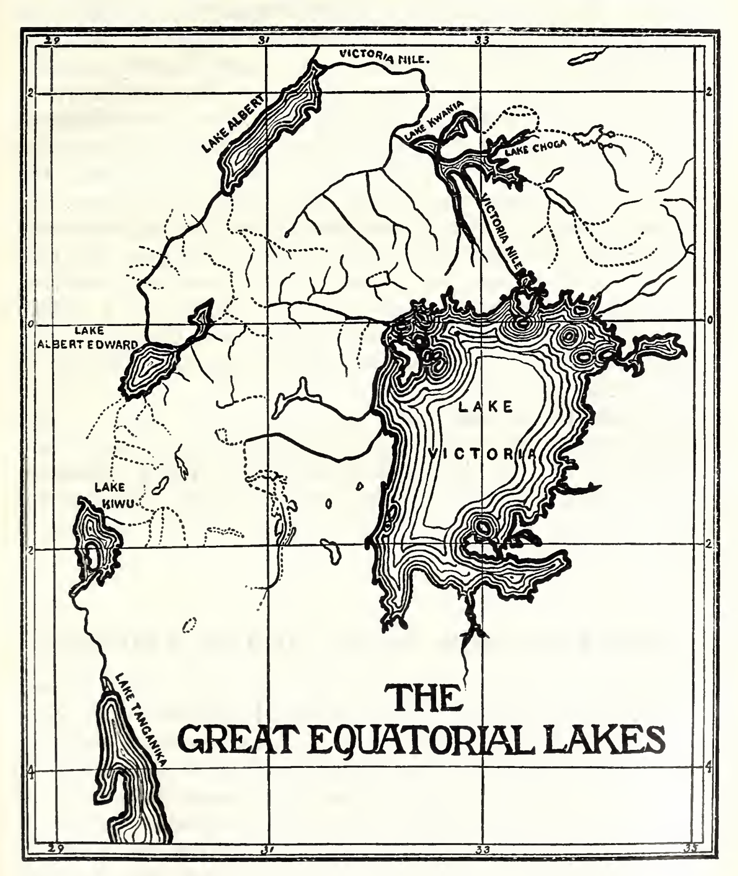
" which the spray is tossed high in the air in a misty cloud. " Above all, a deep blue sky and a brilliantly clear atmosphere " add to the effect of an exceptionally lovely scene. In the " distance, but a long way down stream, the pointed peaks of " the Kuku Mountains form an effective background to this " enchanting picture." **Dufilî,** 130 miles from Magungo, and 1,190, from Kharṭûm, is in lat. 3° 34′ 35″ N., and long. 32° 30″ E It consists of a collection of huts within a fortified enclosure, and is armed with Krupp guns; behind it is Elengua Mountain. Here are the historic fig trees under which Emin Pâshâ transacted business. It is said to be very unhealthy, and blackwater fever is prevalent. At mile 640 (from Lake Nô) is "Mosquito Camp"; traces of the track of the Belgian Railway are here visible. At mile 645 is the **Jokka River,** on the east bank. At mile 665 is **Abu Karar,** on the east bank. At mile 685 is the site of the old Egyptian station of **Bôrâ.** At mile 700, a little below the junction of the Umi River with the Nile, on the east bank is **Wadelai;** it is the headquarters of a district, and here a British collector and a European medical officer are stationed; the garrison consists of police only. At mile 715 the **Achwa River** joins the Nile on the eastern bank. At mile 730, on the east bank, is the Luri village of **Otiak.** About six miles up stream the north end of Albert N'yanza is reached. **Albert N'yanza,** or Lake Albert, was discovered by Sir Samuel Baker in 1864; it lies within the parallels of lat. 1° 9′ and 2° 17′ N., and between the meridians of 30° 35′ and 31° 30′ east of Greenwich. It is about 2,169 feet above sea level. Its greatest length is about 100 miles, and it varies in width from 20 to 26 miles. Its main tributary is the **Semlîki River,** which enters it at the southern end, but it also receives the drainage of Ruenzori Mountains, and of a chain of hills on the west. The Semlîki river is about 162 miles long. The Victoria Nile enters Lake Albert in lat. 2° 17′ N., and the waters of the lake are 2,211 feet above sea level; the depth of the lake in the centre has never been ascertained, but for some way from each shore the water varies from 32 to 40 feet in depth. The shore waters are brackish, but in the centre they are sweet; their general colour is a dark sea-green. The scenery is in many parts very beautiful. At Mahagi, or Mswa (lat. 1° 52′ N.), on the western shore was Emin Pâshâ's station. The chief feeders of the Lake are the Rivers Msisi, Ngusi, Nyakabari or Horo, Wahamba, Hoima, Wakki, and Waiga.

The **Victoria Nile,** *i.e.*, the Nile between Victoria N'yanza, or Lake Victoria, and Albert N'yanza, is 242 miles long; it leaves Lake Victoria at the **Ripon Falls,** and flows in a north-westerly direction for many miles. Three or four miles down are the **Owen Falls,** from which place for 35 miles rapids are continuous. At mile 70 from the Ripon Falls is **Lake Choga,** which is 85 miles long, and lies nearly east and west. The Nile next passes through **Lake Kwania,** which it leaves at mile 120 from the Ripon Falls. At mile 124 is **Mruli,** with the ruins of Gordon's old Fort. At mile 170 is **Fuwêra,** or Foweira, and a little down stream are the **Karuma Falls.** At about mile 210 from the Ripon Falls, the Nile, after a sharp bend to the north-west, turns west again, and leaps over the escarpment in the cascade, named by its discoverer, Sir Samuel Baker, the **Murchison Falls.** (Mile 218 from the Ripon Falls.) Just below these is the village of **Fajao;** the river is here infested by crocodiles, which may be seen in scores on the rocks below the Falls. About 20 miles down stream is Lake Albert.

Lake Albert Edward was discovered by Mr. H. M. Stanley in 1875; it lies between lat. 0° 8′ and 0° 40′ S., and is bounded by the meridians of 20° 32′ and 30° 6′ E. The Wanyoro call Lake Albert Edward "Dueru," but this name is now usually given to the small lake at the north-east corner of Lake Albert Edward. The length of both lakes, including the connecting channel, is about 90 miles. Lake Albert Edward receives the waters of many rivers, but it has only one outlet, viz., the **Semlîki River.** The colour of the water is a light green, and it has a brackish taste; in the dry season the lake is covered by a thick haze.

Victoria N'yanza, or **Lake Victoria,** the source of the Nile, lies between the parallels of lat. 20′ N. and 3° S., and the meridians of 31° 40′ and 35° east of Greenwich. Its greatest length is 250 miles, and greatest breadth 200 miles, and its area is as large as that of Scotland; the deepest sounding known is about 230 feet. It is fed by many rivers, but it has only one outlet, the Victoria Nile, which flows from the Ripon Falls in the Napoleon Gulf on the northern shore. Its principal affluents are the Rivers Sio, Nzoia, Lukos, Nyando, Tuyayo, Sondo, Katonga, Ruizi, and Kagera. This last-named river enters the lake north of the point where the Anglo-German boundary touched the coast, and a current sets across from the Kagera to the Ripon Falls, due partly to the volume of water and partly to the prevailing trade wind. The **Kagera**

is the most important of all the affluents of Lake Victoria, and it has been recently declared to be the real source of the Nile, but as the Kagera represents the united streams of the Nyavarongo, the Akanyaru, and the Ruvuvu, any one of these may equally well be declared to be the source of the Nile. On



this point Sir W. Garstin, the final authority on the question, says :—"If it can be considered that any one river supplying a "sheet of water of the size of this lake has a special influence "on its rise and fall, then undoubtedly the Kagera is the real "source of the Nile. Taking the area of the lake and the

"evaporation of its surface into consideration, such a supposi-
"tion can, however, hardly be allowed, and the Kagera can
"only be considered as an item, an important one, it is true,
"in the great system of streams which pour into the lake, and
"not as in any way influencing the discharge at the Nile
"outlet. It is true that it is asserted that there is a drift or
"slight current across the lake from the Kagera in the south
"to the Ripon Falls in the north, but it seems scarcely credible
"that this can be due to the volume of the former river.
"Moreover, this drift is perceptible, even when the volume of
"the Kagera is low, and it seems most probable that it is due
"to the prevailing wind which blows over the lake from the
"south to the north for the greater portion of the year. It
"cannot then be seriously considered that the Kagera is the
"source of the Nile. The lake itself constitutes the true
"source of this river, and forms a vast reservoir, receiving
"the waters of numerous streams, and discharging a certain
"limited portion of their united volume into the great river
"which forms the life of the Soudan and Egypt." (*Report on Basin of the Upper Nile*, p. 19.)

The **length of the Nile** from the Ripon Falls to the Rosetta Mouth of the Nile is, according to the most recent calculations of Captain H. G. Lyons, R.E., **3,473 miles,** or **5,589 kilometres.** According to the Sûdân Almanac for 1911 the total length of the Nile from Victoria N'yanza to Damietta is 3,526 miles.

5 ROUTES FROM ḲANA TO THE RED SEA.

THE desert between the Nile and the Red Sea has been traversed by invaders and merchant caravans from time immemorial. These caravans brought the products of India, Arabia, and Somaliland into Egypt, generally to some town on the Nile in Upper Egypt, whence they were distributed by boat up and down the Nile, and on the west bank of the river by caravans which traded between northern and western Africa, and remote countries in the south, *e.g.*, Dâr Fûr and Kordôfân. The towns to which the products of India and Arabia were brought were Ḳûfṭ, Ḳûṣ, Ḳanâ, and perhaps Luxor. During the Middle Ages Ḳûfṭ was the favourite market-place for Oriental produce of all kinds, and the pilgrims for Mecca usually made their pilgrimage under the

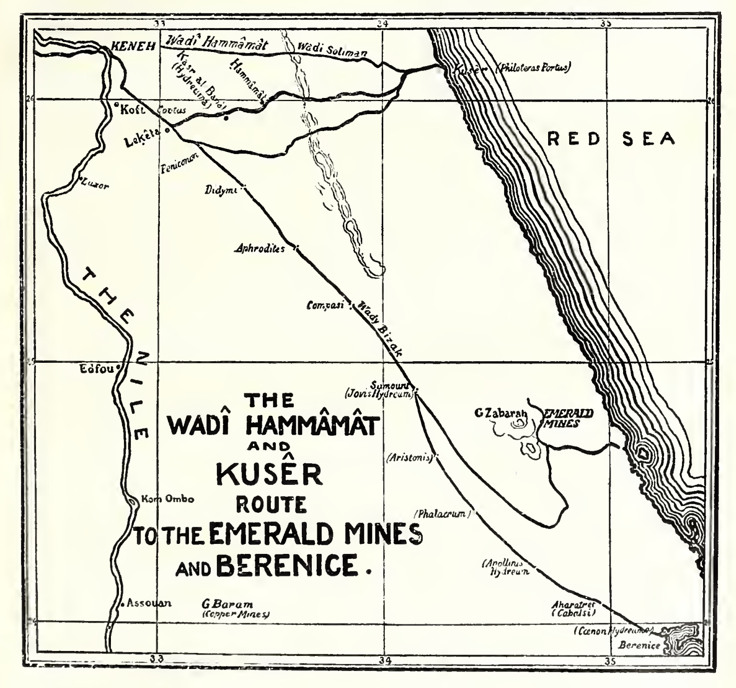
protection of caravans returning to the Red Sea; little by little Ḳûfṭ was abandoned by the desert traders for Ḳanâ, and now both merchants and pilgrims use it as the successor to Ḳûfṭ. Three main routes to the Red Sea were used by the Egyptians. The most important of these was that which ran from **Ḳûfṭ to Kusêr.** It was used for bringing copper from the mines in Sinai, and gold from Punt, *i.e.*, some part of Somaliland, and objects of luxury that came from India and Southern Arabia, *i.e.*, silk, spices, precious stones and gold. The **second route** ran from **Ḳûfṭ to Myos-Hormos**, a port to the north of Ḳuṣêr, founded by Ptolemy II Philadelphus; and the third ran from **Ḳûfṭ to Berenice Trogloditica**, a port to the south of Ḳuṣêr which was also founded by that king. The journey from Ḳanâ to Ḳuṣêr usually occupies five or six days. The first halt is made by the traveller from Ḳanâ, at **Bîr 'Ambar**, a short day's journey of about 10 miles. The Khân at Bîr 'Ambar was built by Sa'îd Pâshâ, and every traveller must bless his generosity. Passing Gabal al-Ḳarn, the dreary road runs to **Laḳêṭah**, a village about 35 miles from Ḳanâ. The roads from Ḳanâ, Ḳûfṭ, Ḳûṣ, and Luxor meet here, and in the Middle Ages the Khânjî, or Khân-keeper, was a prosperous host. Lepsius counted five wells in this place, but some have been filled in. About eight miles further on we reach the rocky eminence called **Ḳaṣr al-Banât**, or the "Fort of the Women," on which there are many *graffiti* in Coptic, Arabic, Sabean, Greek, and apparently Nabatean. Close by are the remains of a large, strong, rectangular building, which the Greeks called Hydreuma; here the caravan guides obtained water, and housed their goods for the night. Hydreuma was a Greek Khân. Five miles further on is Abu Ḳu'a, where Lepsius found the cartouches of Åmenḥetep IV; after a few miles more the whole character of the scenery changes, and we come to a region of mountains which the Egyptians called Rehennu, and the Arabs **Wâdî Ḥammâmât.** Here there are large numbers of hieroglyphic inscriptions; several of these were copied and published by Lepsius in his *Denkmäler*, and in recent years the Russian Egyptologist Golénischeff visited the Wâdî, and copied several more, which Lepsius either did not discover or thought unimportant. The inscriptions prove that the Egyptians quarried here the famous diorite, breccia, and granite, which they made into vases, statues, etc., and many other kinds of stone used in buildings from the Vth dynasty down to the latest period of their history; and an ancient papyrus map, published

by Lepsius, Chabas, and Lauth, makes it quite certain that gold mines existed in the neighbourhood. The most important inscriptions here are those dated in the reigns of **Åssȧ,** a king of the IVth dynasty, **Seānkhka-Rā,** a king of the XIth dynasty, and **Rameses IV.** Åssȧ appears to have made a journey to Wâdî Maghârah in the Sinaitic Peninsula by way of the Wâdî Ḥammâmât, which is called Ånt Rehennu, , *i.e.*, the Valley of Rehennu; Seānkhka-Rā sent an expedition to Punt through it, under the command of **Ḥennu,** whose orders were to bring back large quantities of *ānti* perfume; and Rameses IV employed 8,368 workmen in quarrying stone for the temples at Thebes. Another very important inscription is that of Khnemu-ȧb-Rā, an architect who flourished in the reign of Darius I; this official gives his whole pedigree, *i.e.*, the names of 25 ancestors, all of whom, save one, had been an architect like himself, and many of whom had held high ecclesiastical offices. The family is traced back to an ancestress, who probably lived some 700 years before the last link in the chain, and she may, as a child, even have seen Rameses II. The **Well of Ḥammâmât** was said by Lepsius to be 80 feet deep; it is lined with stones, and could be descended by a winding staircase. Passing the ruins of the great mining settlement called Al-Fawâkhar, and traversing the Wâdî Sîrân, the Wâdî Rûṣafah, the Wâdî Bêḍa, and the Wâdî Ambagî (two days journey) we reach **Ḳuṣêr,** *i.e.*, the "Little Fortress" with 2,582 inhabitants. It is about 110 miles from Ḳanâ, and Boinet Bey makes it a six days' journey by camel from that place. It lies a little to the north of the old seaport town, which existed in mediæval times, ruins of which still remain, and south of Leukos Limen, where the roads from Myos-Hormos and Coptos joined and continued to Berenice. There is nothing of interest at Ḳuṣêr, but the bâzârs are increasing in size, and since the British occupation of Egypt the local trade has developed considerably.

The **second route,** that from **Ḳanâ to Myos-Hormos,** may be traversed in six days. About half-way in the Wâdî Faṭîrah is Gabal Fatîrah, which has been identified with Mons Claudianus, and in the neighbourhood are the remains of the quarries and gold mines that were worked by the Roman Emperors Trajan and Hadrian. The workers were protected by a garrison stationed in a strong rectangular fort about 100

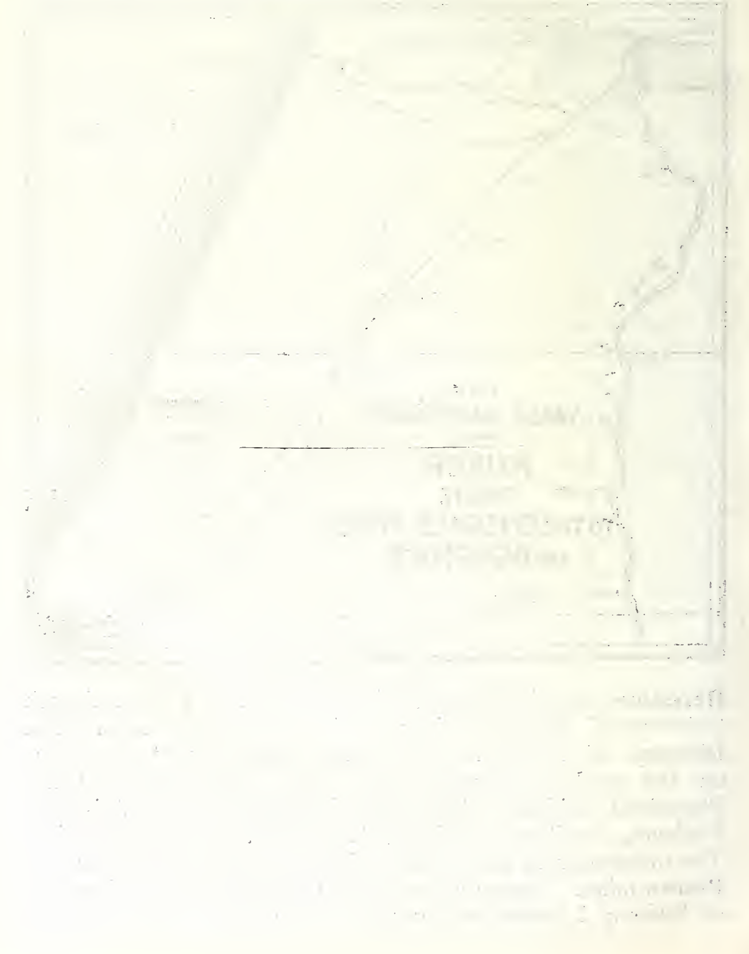
paces square. About two days' journey from this fort are the famous porphyry quarries (Mons Porphyrites, or Gabal Dukhân). Here are the remains of a temple built by Hadrian in honour of Zeus Helios Sarapis, and a fort, and close by are some wells. Another day's journey brings the traveller to Abu Shâr al-Ḳiblî, near which are the remains of Myos-Hormos. The journey is most fatiguing and not interesting.

The **third route, that from Ḳanâ or Ḳûfṭ, or Edfû, to**



Berenice, may be traversed in from 12 to 14 days, though Golénischeff made the journey in 11 or 12 days. The Itinerary of Antoninus says that there were ten stations on the road to Berenice, and gives their names thus: Phoenicon, Didyme, Aphrodite, Kompasi, Jovis, Aristonis, Phalacro, Apollonos, Kabalsi, Kaenon Hydreuma, Berenike. The distance from Ḳûfṭ to Berenice is said by him to be 258 Roman miles. Berenice was named in honour of the daughter of Ptolemy I Soter and Arsinoë. A temple about 100 feet

long and 40 feet wide was built here by Ptolemy II, in honour of the goddess Hathor, and its remains are still visible. The traveller to the **Emerald Mines** (Gabal Zâbarah) should leave the road to Berenice at the fifth station, Jovis. They were visited by Mr. Brindley, the expert in stones, in 1898, and he believed that if adequate transport could be provided, they could be re-opened with great advantage to the opener. Throughout the Middle Ages the yield of precious stones from them was very considerable.



PART V.

EGYPTIAN ARCHÆOLOGY.

The Ancient Egyptians, Ancient Egyptian Religion, Egyptian Gods; Egyptian Language and Writing, Egyptian Amulets and Mummies, Hymn to Rā, Egyptian Learning, Magic, Literature, Architecture, Sculpture and Painting, Pottery, Names of Kings, Chronology, Sketch of the History of Egypt; History of the Arabs, and Table of Muḥammadan and Christian dates.

All the evidence which is now available points to the fact that the root-stock of the Egyptians, whose remains are many, was African, and there is no doubt that African people, who possessed many of the fundamental characteristics of the primitive Egyptians, have lived in the Valley of the Nile for many thousands of years. The classical writer Diodorus (iii, 3, 1, 2) adopted the view that the Egyptians sprang from a colony of Ethiopians who had settled in Egypt, and that, inasmuch as the soil of Egypt had been brought down by the Nile, Egypt itself was a product of Ethiopia. It must be remembered that the country called Ethiopia by Diodorus is not Abyssinia. The ethnographical table given in Genesis x, 6, states that Mizraim, *i.e.*, Egypt, was the son of Ham, and that he was the brother of Cush, Phut, and Canaan, and as the Hamites represent the fair African peoples, the author of the ethnographical table and Diodorus agree. Cush is the name usually given to Ethiopia, and it is possible that by marriage at a very remote period the Egyptians became kinsfolk of the Ethiopians, but there are no grounds for the assertion that the Egyptians had negro blood in their veins. The bulk of the Egyptian population presents the characteristics of the white races which have been settled from all antiquity in the parts of the Libyan continent which are on the shores of the Mediterranean, and it originated in Africa itself, and made its way into Egypt from the west or from the south-west. It is further suggested that when this people arrived in Egypt they found there a **black race**, which they either destroyed or drove out, and that they were subsequently added to in

number by Asiatics who were introduced through the Isthmus of Suez, or through the marshes of the Delta. These new-comers may also have entered Egypt by way of the Straits of Bâb al-Mandib. It is tolerably certain that at a very early period the indigenous inhabitants of the Nile Valley were mingled with the **fair-skinned Libyans**, whom some regard as Hamites, and it seems that they led a purely pastoral life on the banks of the Nile and in the neighbouring deserts. Their **skulls** were dolichocephalic, or "long-headed," *i.e.*, their diameter from side to side bore a less proportion to the longitudinal diameter, *i.e.*, that from front to back, than 8 to 10; hence they were, both physically and mentally, entirely different from the Egyptians, whose skulls in respect of measurements occupy a middle position between the dolichocephalic and the brachycephalic, or "short-headed" men. The **hair** of both sexes was short, and the **beards** of the men were long and pointed, but turned up at the points; the **faces** of both men and women were regular and oval in shape, and the **lips** projected but slightly. The **eyes** of the men were almond-shaped and very broad, and they were shaded with heavy arched eyebrows; the figures of the women were comparatively slim, their thighs were broad, and their feet of moderate size, with, in some cases, a good instep. Both men and women seem to have had slightly sloping shoulders, and to have been a little above the average height, and not of a heavy type in their build. Besides these there must have been an element in the population produced by marriage with the Negro and Negroid tribes who lived a few degrees to the north of the Equator. It must never be forgotten that the dynastic Egyptians regarded Punt as their original home; and Punt and the "land of the spirits" were certainly situated some hundreds of miles to the south of Kharṭûm, and at no great distance from the Indian Ocean.

At some remote period, to which it is at present impossible to assign a date, the Nile Valley was invaded by some people, or group of peoples, belonging to a different race, who were far more advanced on the ladder of civilization than the Egyptians. The land from which they came was perhaps Asia, and there is very good reason for believing that their original home was the region which was called Babylonia in later days. According to some they entered Egypt by way of the Peninsula of Sinai and the Delta, and so made their way up the Nile; according to others, starting from some point in

Southern Arabia they crossed over by the Straits of Bâb al-Mandib to the African shore, which they followed northwards until they arrived at the entrance of the Wâdî Ḥammâmât at Ḳûṣêr, which they entered, and after a few days' march arrived in Egypt near the ancient city of Coptos; according to a third opinion they entered Egypt from some country to the south-east, or even south, of Egypt, and made their way down the Nile. For the view which made the invaders enter Egypt by the Wâdî Ḥammâmât there is much to be said. The newcomers brought with them the arts of agriculture, and introduced into Egypt **wheat** and **barley**; the art of **brickmaking,** the art of **writing,** the art of **working in metals ;** and among other domestic animals they introduced the **sheep** into Egypt. The manners and customs of the indigenous inhabitants of Egypt must have been profoundly modified by the invaders, and we may note in passing that, after their arrival, the Egyptians as a nation seem to have abandoned the practice of burying their dead in a semi-embryonic position, and to have buried them lying on their backs at full length. As time goes on it becomes more and more clear that many of the most important, but later, elements of Egyptian culture were brought into Egypt by a people who were not remotely connected with some of the ancient dwellers in Babylonia.

The above remarks will show the reader how very little definite information exists concerning the origin of both the pre-dynastic and dynastic Egyptians. Some reading the facts of archæology, or philology, in one way arrive at one conclusion, and others reading the same facts in another way arrive at another conclusion, and others again by mixing up theories with facts produce results totally different from those of their fellow workers. Had we all the facts it would be comparatively simple to write out a statement about the origin of the Egyptians which would satisfy all enquirers, but the truth is we have not got them. In recent years attempts have been made to settle the question by means of craniological measurements and by anthropometry, but here again authorities differ, and the non-expert does not know what to believe, or whose statements to accept. The Egyptologist is as helpless in such a case as the non-Egyptologist. Professor G. Elliot Smith has formulated a theory based on a large number of facts derived from deep study and examination of human remains from many places in the Nile Valley, and his views

about the ancient Egyptians as given in a paper read before the British Association in September, 1910, are as follows :—

"In the present state of our knowledge it would be idle to "discuss the origin of the pre-dynastic Egyptian population "beyond stating that the people showed undoubted affinities "with the so-called 'Mediterranean Race' as well as with the "Arabs, and that they must have been settled in the Nile valley "for many ages before they constructed the earliest prehistoric "graves known to us, for their peculiarly distinctive culture, "their arts, their mode of writing, and their religion were "certainly evolved in Egypt. But even before the end of the "pre-dynastic period a slight change in the physical traits of the "population could be detected; although it was not until "more than four centuries later, *i.e.*, until the time of the "Third Dynasty, that the modification of the physical type "became sufficiently pronounced to afford unmistakable evi-"dence of its significance. For then the three Nile territories "under consideration had each its own distinctive people: "Lower Nubia, a population essentially identical with the "pre-dynastic Egyptian, but slightly tinctured with negro; "Lower Egypt, the descendants of the pre-dynastic Egyptians, "profoundly modified by admixture with alien white immi-"grants, who entered the Nile valley *viâ* the Delta; and Upper "Egypt, protected by its geographical position from the direct "effect of either of these foreign influences, was being subjected "to the indirect influence of both by the intermingling of its "people with those of Nubia and Northern Egypt. In the "time of the Middle Kingdom this double racial influence "became much more pronounced in the Thebaid. The "Nubian element also became more significant, the influx "consisting at various times of slaves, mercenaries, and perhaps "also invaders, not to mention the slow but steady percolation "into Egypt of a negroid element resulting from the secular "intermingling of neighbouring peoples. Thus began that "graduation of racial characters in the Nile valley, ranging from "the Levantine white population of Alexandria to the negro of "the Sûdân, which had persisted until the present day, and was "displayed even in the measurements of 30,000 modern "Egyptian men, which were now being examined by Mr. J. L. "Craig. It was not yet possible to express a positive opinion "as to the source of the white immigration into the Delta, "which first reached significant proportions in the times of the "Third and Fourth Dynasties; but, from evidence which had

"been recently collected, it seemed probable that the bulk of "it came from the Levant. It is most likely, however, that "there was a steady influx into the Delta of people coming "both from east and west, and that their percolation into Egypt "was so gradual as not to violently disturb the even flow of the "evolution of the distinctive Egyptian civilization. Neverthe-"less, it is perhaps not without significance, especially when "we take into account the simple-minded, unprogressive, and "extremely conservative character of the real Egyptian, to note "that none of the greatest monuments were constructed nor "the most noteworthy advances made in the arts of the "Egyptian civilization, except on the initiative of an aristocracy, "in the composition of which there was a considerable infusion "of non-Egyptian blood. From the times of the Pyramid "builders until the present day Egypt's rulers have probably "never been of undiluted Egyptian origin."

The **language** which was spoken by the invaders belonged to the Proto-Semitic group, and was different from that of the Egyptians and from the languages of many of the Hamitic and Libyan peoples; some think that the Proto-Semitic group of languages and Egyptian are descended from a common stock.

Looking back on the history of Egypt we can see that no nation has seen so many vicissitudes of fortune, or been the object of invasion by so many enemies. The geographical situation of the country renders her position among nations unique. She lies open and unprotected to the dwellers in the desert on both sides of the Nile, the whole of her length, and her fertile soil has always been a great attraction both to pastoral and agricultural tribes. From the earliest times the desert tribes must have raided the country, especially the Delta, with considerable success, and cattle and grain were no doubt carried off in abundance. What the earliest dweller on the Nile was like we have no means of knowing, but if we may judge by the long series of pictures of dynastic Egyptians which adorn the walls of tombs that cover a period of nearly 3,500 years, he was very much like what the fallâḥ, or peasant farmer, is to-day. The colour of his skin was dark red or a reddish-brown, his eyes were slightly oblique, his hair was dark and thin, his body was slender, his legs thin, and his feet long; the skin of his womankind had a dark yellowish tinge in it, probably because their bodies were not so much exposed to the sun. The nations which have conquered himself and his land have produced no perma-

nent modification in his physique, a fact which the traveller can easily verify for himself; on the other hand, those who have attempted to settle in his country have either been eliminated by the inexorable climatic and other influences, or have become absorbed into the native population. The Egyptian of the soil is practically unchangeable physically, and it is not too much to say that mentally and intellectually he remains the same as he was 7,000 years ago. It was probably only a comparatively limited upper class, containing foreign elements, which made the Egyptians celebrated for their learning. That this upper class had very little influence on the general population of the country is evident from many things, and it is certain that, to all intents and purposes, the conquering element and the conquered had extremely little in common. The peasant proprietors and their labourers in the fields lived in precisely the same way as their ancestors from time immemorial; their manners and customs were the same, and their religious beliefs were identical. Their conquerors changed the names of some of the old gods of the country, but they never succeeded in altering the people's conceptions of the celestial powers and their attributes. There is good reason for believing that many of the manners and customs of the primitive Egyptians were identical with those of the primitive population which extended down the Nile from Central Africa. Many of the religious beliefs and ceremonies which are made known to us by the hieroglyphic texts have their equivalents among the A-Zande, or Niam Niams, and the Bantu and Fanti tribes at the present day, and it seems certain that these were developed by the Dynastic Egyptians from the earlier nhabitants of the Nile Valley. All the facts available suggest that the inhabitants of the Nile Valley as a whole have never changed the fundamentals of their religion, and that, substantially, they believe now what they believed 6,000 years ago. The outward expressions of these beliefs are different in different places, but among all the main Sûdânî peoples and tribes the doctrines about the Creator and creation, and about good and evil spirits, the soul, death, and the future life, and the cult of the divine ancestor, are the same. Solar cults were introduced into Egypt by its conquerors, and were practised for many centuries (principally by kings, priests, and the aristocracy), but they never appealed to the great mass of the population, and in the minds of the people they occupied a position subordinate to those of the truly indigenous cults.

2. The Religion of the Ancient Egyptians.

THE earliest proof that the Egyptians possessed religious beliefs is afforded by the pre-dynastic graves which have been excavated at Gabalên, Naḳâdah, Abydos, and other sites during the last 35 years. In these, in addition to the human remains which were deposited in them either as whole or disjointed bodies, have been found jars and vases containing substances which were intended to serve as food for the deceased on his journey to some place of abode beyond the grave, and weapons of flint wherewith he might defend himself against the foes of various kinds which he was expected to meet on the road thither. Thus it is clear that the **pre-dynastic Egyptians** believed that a man would, after death, enjoy life in some form, and in some place, to reach which they did their utmost to provide him with means; it is probable that they considered such a life to be merely a prolongation or renewal of the life which a man led upon earth, and that they imagined it would include joys and pleasures, perhaps also rewards, of a material character. Where, however, that life was lived, or the manner of region in which it was lived, we have no means of knowing, and whether this life after death was everlasting or not we know not. We may, however, assume that the beliefs of the primitive Egyptians resembled those of some of the peoples and tribes of the north-east quarter of Africa, who live under the same conditions as they lived, and on land which is similar to theirs. Speaking generally, it seems that the primitive Egyptians peopled earth, air, river, and sky with spirits or beings, some of which were benevolent and some malevolent, and that to these they attributed various degrees of power. The greater number of such beings were probably regarded by them as being of a nature like unto themselves; and there was perhaps a time when the Egyptians did not believe in the existence of any beings who were different from themselves.

What is known of the **religion of Egypt in dynastic times** suggests that in the earliest period of its history each community possessed its own supernatural being or spirit, who had his own peculiar form, and his own special manner of making himself manifest, and it is pretty certain that the views which the bulk of the community held concerning him dictated the ceremonies which, it was believed, would conciliate it or procure its aid. In connection with this period in the history

of Egyptian religion it is important to state that many of the spirits which were adored at that time became gods subsequently, and continued to be the objects of worship of the dynastic Egyptians, and that many of the ceremonies connected with their service were celebrated for some thousands of years, though in some cases variations were made in details.

Besides all these beings, the Egyptians believed in the existence of **One Great and Almighty God,** Who created the world and everything in it. They seem to have thought, just as modern African tribes think, that He was too exalted to concern Himself with the affairs of men and the governance of this world, and therefore He committed all such things to a large number of spirits, or "gods," some of whom were benevolent, and some malevolent. Both classes of "gods" could be propitiated with offerings, and hence arose the **worship by means of offerings** which plays such a prominent part in the Egyptian religion.

In primitive times it was believed that spirits manifested themselves in birds, animals, reptiles, trees, stones, etc., and that under certain circumstances they had the power of speaking in human language. Certain spirits attached themselves to certain animals, either temporarily or permanently, and many animals, *e.g.*, the lion, jackal, bull, ram, were held to be abodes of spirits or supernatural powers by the pre-dynastic Egyptians, and by the later inhabitants of the country. Besides living creatures, the primitive Egyptians adored various objects to which it is customary to give the name of **fetishes**;* among these may be mentioned the ṬEṬ, 𓊽, which is a modification of the sign 𓊽 placed upon a pillar, or pedestal, 𓊽, and represents nothing more nor less than a portion of the back of Osiris. The setting up of 𓊽 upon a pillar symbolized the resurrection, and an amulet so shaped, or even a picture of it, gave to the wearer the gift of "renewed life." Another

* From the Portuguese feitiço "sorcery, witchcraft." The word was first applied by the Portuguese sailors and traders to objects worshipped by the natives, which were regarded as charms or talismans. A *fetish* was supposed to have a spirit embodied in it, which acted through it, and held communication with it. It was treated as if it possessed personal consciousness and power, was talked with, worshipped, prayed to, sacrificed to, and petted or ill-treated with reference to its past or future behaviour to its votaries. E. B. Tylor, *Primitive Culture*, vol. ii, p. 133.

interesting "fetish" is the [hieroglyph] or so-called "buckle of Isis." This object was, however, no buckle, but an internal organ of the body of Isis, which contained her life blood. An amulet so shaped, and made of red stone, or even a picture of it, gave to the wearer the magical power of the blood of the goddess. Both these objects were in some way intimately connected with the history of Osiris, and as such they played prominent parts in his worship at all periods; but it is pretty certain that the true history of their connection with the god was forgotten at a very early period, especially as the pictorial representations of them could not, in the first instance, have been very faithful.

At the time when the Egyptians were worshipping spirits they probably adored the great powers of nature, and the sun, moon, and stars, light, darkness, etc., and they thought that the spirits of these could dwell in birds, animals, snakes, and other creatures. Every village community possessed its local spirit, and, in later days, every town and city had its own group of spirits, or "gods" as we may call them, among which were included the great spirits or great gods who were worshipped throughout the country. Such spirits and gods shared the good or evil fortune of the community to which they belonged. Their emblems or symbols were carried out to war, special habitations were set apart for them, and their upkeep was provided for out of common funds. As the riches of the community increased, the rank and dignity of its god kept pace with them, but his revenues suffered in times of scarcity, defeat, and war; the gods and their emblems might even be carried off into captivity and burnt, when, of course, the spirits or gods suffered defeat and death like their votaries. The number of such spirits or "gods" was very considerable in early times, and even in the dynastic period the "gods" could be counted by hundreds. The reduction in the number of spirits began when man realized that certain of them were mightier than others, and the same may be said of the "gods." As man developed, his conception of his "spirit," or "god," developed also, and a time came when he decided to represent his object of fear or worship in human form. The **god** who is always represented **in human form** is Tem, or Atmu, and it seems as if he were the product of a higher form of religious thought than that which existed among the purely African peoples. To a great many of the gods of the pre-dynastic

Egyptians human bodies were given in pictures of them, and it is possible that this custom may be the result of a transition period in religious development when man began to be tired of or dissatisfied with gods in wholly animal forms. Thus we have a hawk-headed man for Rā and other solar gods, a jackal-headed man for Anubis, a crocodile-headed man for Sebek, a beetle-headed man for Kheperȧ, **Osiris the deified dead ancestor** is depicted in the form of a swathed, mummied form.

The pictorial representations of such gods usually give to the gods a long, plaited beard, and a long, animal tail; they carried a staff of authority in one hand, and in the other the symbol ☥, *i.e.*, "life," which is the special emblem or attribute of divinity. This sign ☥ *ānkh* is a conventionalized form of an internal organ of a woman's body with certain additions. Goddesses also are represented in forms which are part human and part animal or reptile, and all deities were believed to have the power of assuming at pleasure the bird, or animal, or reptile form under which they were supposed to have appeared in primitive times. Thus Rā could become a hawk, Isis and Nephthys could become vultures, Serqet could become a scorpion, powers of evil could become snakes, and so on. This idea was so persistent in later periods that provision was made for enabling the dead man, who had become master of life after death, *i.e.*, who had become a god, to take the form of birds, of the crocodile and serpent, of the lotus, and of certain gods at will. There is no evidence available which would justify us in asserting at exactly what period it became customary to represent the gods in forms which were half human and half animal; but it may have come about as a result of the higher class of civilization which was brought into Egypt by those who taught the Egyptians how to make bricks, and to grow wheat and barley. The important fact to note is that when the change took place one class at least of the Egyptians had advanced from the worship of spirits, fiends, demons, etc., to the cult of animals, and from the cult of animals to the adoration of the man-god, both living and dead. Thus they made their gods in the image of themselves, and they assigned to them wives and offspring, and then proceeded to invent stories about their lives and deeds. Examples of **triads**, or **trinities**, are:—**Tem + Shu + Tefnut**, *i.e.*, father, son and daughter; the trinity of Memphis, **Ptaḥ + Sekhmet + Nefer-Tem**, *i.e.*, father, mother and son; the trinity of Busiris,

Osiris + **Isis** + **Horus**; the trinity of Thebes, **Ȧmen-Rā** + **Mut** + **Khensu**, etc.

The common **word for god** is NETER, [hieroglyphs], the exact meaning of which was lost at a very early period; the plural is NETERU, [hieroglyphs]. The common word for "goddess" is NETERT, [hieroglyphs], with its plural, NETERIT,* [hieroglyphs]. When the Egyptians wished to speak of the whole of the gods they used the words *paut neteru*, *i.e.*, the "divine matter," but as under the Ancient Empire it was customary at Heliopolis to enumerate nine gods, these words gradually assumed the meaning of something like "the company of nine gods." These **nine gods** were, Temu or Atmu, Shu and Tefnut, Geb and Nut, Osiris and Isis, Set and Nephthys. Now, as the Egyptians regarded the sky, earth, and underworld as three distinct realms, they invented a company of gods for each; each company might contain as many as 14 or as few as five gods, and thus it happens that the three companies comprised all the principal gods of Egypt.

About the **abode of the gods** various views existed. According to one opinion heaven was situated above the sky, and was separated from the earth by a rectangular alabaster slab, and the stars were thought to be lamps which were suspended from holes drilled in the plate: and according to another, the abode of the blessed was in the Delta, or in one of the Oases. One legend made the heavens in the form of a cow, and another in the form of a woman, whose body formed the canopy of the sky; the legs of the cow in the one legend, and the arms and legs of the woman in the other, formed the cardinal points. The first act in the history of **creation** was the rising of the sun; this was brought about by an act of will on the part of the god Kheperȧ, and when this had been done the god created Shu and Tefnut, who in turn produced a number of gods, and finally men and women came into being from the tears which dropped from Kheperȧ's eyes upon his own members. **Kheperȧ, Shu, and Tefnut** formed the **first triad** of gods, according to a very old legend. Another legend represents the sun-god Rā as being angry with mankind because they were mocking him and scoffing at his age, and

* In the Book of Gates *neterit* is, in one place, used as a term of contempt, and is applied to what we should call "false gods."

in his wrath he caused many of them to be destroyed. Of all legends, however, the most important and widespread is that of **Osiris,** the king of the underworld and **judge of the dead.** This god, who lived at one time on earth in human form, was murdered by **Set,** the god of evil and the equivalent of the Devil of modern nations, who hacked in pieces the body of Osiris. **Isis,** the wife of Osiris, collected the pieces and reunited them, and vengeance was taken on Set by **Horus,** son of Osiris and Isis, who, according to one legend, was begotten by Osiris after death through the incantation of Isis. Osiris became the god of the underworld and judge of the dead, through the incantations of Isis and the magical ceremonies which were performed by Horus and certain assistants.

About 3600 B.C. the priests of Northern Egypt succeeded in making a very ancient god called **Rā,** who was a form of the Sun-god, the head of the deities of Egypt. This god was supposed to represent all the old solar gods of the country, who were now regarded merely as subsidiary forms of him; with Rā were associated a number of triads from the chief cities of the Delta, *e.g.*, Saïs and Bubastis, and the triad of Memphis, and in this way all the gods and goddesses of the pre-dynastic and archaic periods were brought under the sway of Rā. The priests of Rā appear to have been very tolerant, and so long as the supremacy of their god was acknowleged they were content to allow the older cults of animals, etc., to flourish. In the Delta two very ancient goddesses were **Neith** of Saïs and **Bast** of Bubastis; the former was said to be self-created and to have begotten and conceived her son, the Sun-god. Among the epithets applied to her are those of "eternal" and "self-existent." About 2500 B.C., **Åmen,** a local god of Thebes, became important among the gods of Egypt, for the princes of Thebes were becoming the dominant power in the country; the power of Memphis and Heliopolis had been broken, and the princes of Herakleopolis had been defeated by the Theban hosts. The name "Åmen" means the "hidden one," and he symbolised the hidden power that made all beings to come into existence, and to increase and develop. Åmen is, however, a very old god, and the discoveries made by M. Legrain at Thebes prove that a sanctuary of Åmen was in existence in this city under the early dynasties of Egyptian kings. Åmen is probably one of the oldest indigenous gods of Upper Egypt. About 1500 B.C. the renown

of Åmen was very great, for he was by this time identified with all the great gods of the land: as Rā absorbed all the deities of the primitive Egyptians, so did Åmen absorb Rā and his company. In fact, the old gods of Egypt were declared to be merely forms of Åmen, the "king of the gods," and his priests declared that only kings who had the blood of Åmen in their veins could reign.

The priestly hierarchy of Åmen-Rā was the most powerful which was ever formed in Egypt, and its influence was sufficiently strong to resist successfully the attack made upon it by Åmen-ḥetep IV, who called himself Åakhu-en-Åten, and tried to restore the worship of the Sun-god Åten, in the form in which it was celebrated in connection with Rā of Heliopolis. The priests of Åmen usurped the supreme power about 1000 B.C., and their arrogance alienated the people of Upper Egypt, and finally they fled from Thebes to Napata in Nubia. Under the XVIIIth dynasty the hymns addressed to Åmen-Rā contain attributes and titles which belong to a number of other gods, and he is addressed in terms which prove that his devotees believed him to be God, Who made Himself manifest in the form of His creature, the Sun. Under the influence of the priests of Åmen-Rā a form of belief was developed which was different in many ways from that of the priests of Heliopolis, but the fundamental characteristics of the indigenous religion of Egypt were always prominent. It must, however, always be remembered that the religion of the people was invariably less spiritual than that of the thinking, well-educated priests. In the troubled times which followed the end of the reign of Rameses II, about 1280 B.C., great confusion existed in the religion of the people, and the true attributes of many gods were either confounded in their minds or forgotten by them. About this time the ancient worship of **Set**, the Arch-Fiend, and author of all evil, was revived, and in many parts of Egypt a form of *Satanism* existed. Under the influence of political events foreign gods were introduced into Egypt, and the religious tolerance of the people being great, no serious opposition was offered to their worship. Under the Ptolemies the gods of the company of Osiris were greatly honoured, and with the exception of Serapis, no new gods of importance were introduced; Osiris, Isis, and Horus were the leading deities of the land.

Reference must now be made to the Egyptian belief in **immortality**, and to the views which they held concerning

heaven and hell. The texts which have come down to us are full of difficulty and contradiction, and it is clear that many opinions existed on these subjects which we can never hope to reconcile. It is, however, quite certain that the Egyptians of all periods believed in a future life. In the earliest times they believed that future bliss could be obtained by the use of magical names and words of power.

Even under the Ist Dynasty the passport to the kingdom of heaven was **moral worth**. A righteous life in this world was all-important, and the worship of God and of His representative the king, and the showing of kindness to one's family and neighbour, were demanded by Osiris from all those who would enter heaven and live with him. Under the Vth Dynasty Osiris was declared to be the god who "set right in the place of wrong." Whatever was thought about faith, works were all-essential. **Repentance**, or remorse for evil deeds committed, was unknown. What was done was past, and could not be altered; therefore it was useless to be sorry or feel remorse. But it is quite possible that the Egyptian had grasped the idea of a "change of mind" being necessary if a man wanted to avoid repeating his sins. The god ḤER-F-ḤA-F, , the Egyptian **Charon**, would ferry no soul from this world to the next unless he was assured that it had moral worth on which to base its claim to heaven.

Under the XVIIIth Dynasty they thought that the style and duration of their future life depended upon the manner of life which men had led on earth. The man who had made offerings to Rā or Osiris on earth benefited by these pious acts in the life beyond the grave, and these gods preserved in happiness the men who had honoured them upon earth. The Egyptians believed in the **Judgment**, and seem to have thought that it took place immediately after death. The dead of each district went to that portion of the Underworld which belonged to their district, whence they passed to the kingdom of Osiris. In dynastic times the Judgment was held in the Hall of Maāt, where each of the Forty-two Judges received the assurance of the deceased that he had not committed a certain sin. The heart was weighed in a pair of scales against a feather , symbol of righteousness, under the supervision of Thoth, the scribe of the gods, and of Anubis, the god of the dead. The heart

was expected to balance the feather exactly; it was not required to outweigh it. Justice only demanded that the beam of the scales should be perfectly level. To be "righteous overmuch" was to incur the displeasure of the gods. When Osiris was tried by the Great Gods at a time indefinitely remote Thoth acted as his advocate, and proved that he, Osiris, was *maā kheru* "true of word," that is to say, that he had spoken the truth, and was therefore innocent, or not guilty of the charges which Set had brought against him. Therefore every soul was held to be declared innocent when it was judged. If the result of the weighing of the heart was that it was declared to be "true of word," the deceased passed on through the Hall and paid adoration to Osiris, who permitted him to enter the Fields of Aaru; if it were not, his heart was given to Āmemit, the Eater of the dead, who devoured it. In the Fields of Aaru a portion of ground was measured out for the deceased, its size varying according to his merits. Here he tilled the ground and tended the wonderful wheat of that region, which was a form of Osiris; and he lived upon that wheat, *i.e.*, upon the god himself.

Another view maintained that the souls of the blessed entered the boat of the sun, and lived with Rā for ever, and that the wicked, which included idolaters and apostates, and all the powers of darkness which tried to bar the path of the Sun-god, were mutilated with knives or destroyed by fire each day between midnight and sunrise. The blessed lived in a state of divine bliss for ever, and the belief which seems to have been the most widespread in Egypt assigned to each man his own homestead in the Elysian Fields, where he would live with his parents and enjoy all the comforts of a well-stocked farm in a fertile country. This belief is clearly the product of the time when the Egyptians became an agricultural people, and it was only under the influence of the priests of the various forms of the Sun-god that they adopted the belief that the blessed became beings of light and lived in the boat of the Sun-god.

The name for the **Underworld** was Ṭuat, [hieroglyphs], and it was supposed to be a region which ran parallel with Egypt it was a rocky valley with a stream flowing the whole length of it, as the Nile flows through Egypt, and it was divided into ten main sections, with two smaller divisions, one at each end, which served, if we may use the word, as vestibules.

When the sun set he was believed to pass in his boat from this world into Amentet, the western vestibule of the Ṭuat, and then to journey through the various sections of the Ṭuat at the rate of one per hour. At the entrance to each section was a massive gate, which his words of power enabled him to enter. As the god passed through each section the blessed were arranged on his right hand, and the wicked on the left, and he saluted both in turn, and uttered the word of power which provided the continuance of the happiness of the former, and the misery of the latter. On his way the Sun-god overtook the souls who had set out for the realm of Osiris, but who for some reason or other had failed to get there; those who were fortunate enough to possess amulets, words of power, etc., embarked in the boat of the Sun, and went with the god to the Kingdom of Osiris, which was reached about midnight. According to the views of the priests of Åmen, the Judgment took place at midnight, and all rewards and punishments were meted out before the breaking of a new day. As the enemies of the Sun-god who came into being during the course of the day were destroyed before the day was ended, this disposes of the idea of some that the Egyptians believed in purgatory. As soon as the Judgment is ended, the boat of the Sun continues its course, and eventually, having passed through all the sections of the Ṭuat and its **Twelve Divisions**, it goes out from the gloom of the Underworld, and glides on to the waters of the celestial ocean called Nut, and so rises on this world. The souls who have been fortunate enough to sail with the god so far are now able to see this earth, and they can fly down to it and visit their old haunts at pleasure.

Now, although the Egyptians firmly believed in the mightiness of the power of their gods, Osiris and Rā, they were also firmly convinced that they were able to assist in securing their own future life by performing certain things. The most important of all was to **mummify the body**, for it is clear beyond all doubt that in the earliest times they thought that the life of the soul depended in some way upon the preservation of the material body. There were some, no doubt, who believed in the **Resurrection** of the material body, and who mummified the body for this reason; and others, apparently a very large class, thought that the "spiritual body" sprang directly from it through the prayers which were said and the ceremonies which were performed when the mummy was placed in the

tomb. The earliest religious texts prove that Egyptian theologians distinguished in the economy of man :—

1. The KHAT or the material, corruptible body.
2. The KA or double.
3. The KHAIBIT or shadow.
4. The BA or heart-soul.
5. The ÅB or heart.
6. The SEKHEM or vital power.
7. The KHU or Åakhu or spirit-soul.
8. The REN or name.
9. The SĀḤ, or the "spiritual body," which, in the case of the blessed, came into being after death, and contained all the mental, intellectual, and spiritual properties of a man.

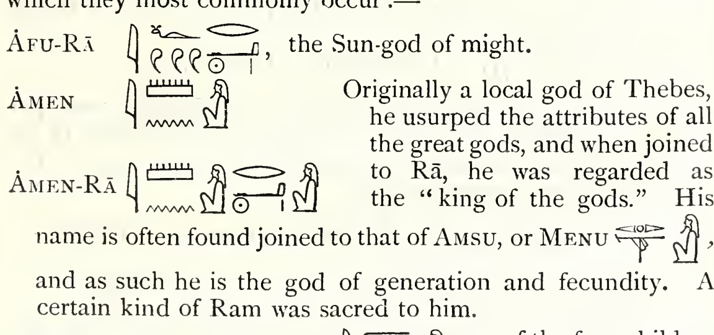
The **ka**, or "double" of a man, lived with his body in the tomb, a chamber of which was specially set apart for it; this chamber was connected with the hall of the tomb by means of a narrow passage, through which the *ka* was enabled to smell the odours of the incense, etc., which was offered up in the tomb at stated intervals by the descendants and friends of the deceased. The *ka* lived on the spirits of the offerings which were made in the tomb, and if these failed it was believed it would wander about in the desert and eat whatever offal it might find there, and drink dirty water. To avoid such a calamity wealthy people had cisterns of water placed by their tombs, and round about these trees were planted; thus the soul, when it visited its former body, found a comfortable and shady place on which to rest and clean water to drink, and the *ka* had water always available for its needs. The form of the *ka* was that of the man to whom it belonged, and it seems to have been an immaterial, shadowy being, who was, however, supposed to be gratified with the sight of, or pictures of, or phantoms of material food, or perhaps with the smell of actual food. The **ba**, or heart-soul, appeared in the form of a human-headed bird. The **Åakhu**, or spirit-soul, appeared in the form of a bird. Next in importance to the preservation of the body was the preservation of the man's **name**, for if this were destroyed or forgotten he lost his identity, and it seems that at one period it was thought that the destruction of a man's name

involved the destruction of his whole being. To introduce a nameless man to Rā or Osiris in heaven was impossible. The name of the deceased is always mentioned several times on his tomb and coffin and papyrus (when there is one), and it occurs prominently on every article of his funeral furniture. The various portions of man's material and spiritual bodies mentioned above represent different phases of psychological belief, and probably belong to different periods in the development of the Egyptians; but they were never forgotten by the people, and they appear in religious texts which were written centuries after belief in many of them had become very vague, or had entirely disappeared. As a whole the Egyptians were extremely religious, but they never troubled themselves with abstruse philosophical questions concerning their beliefs like many peoples of antiquity, for so to do was foreign to their nature and disposition, and they were probably incapable of it. They devoted most of their energies to the building of tombs to hold their own bodies, and to the worship of their ancestors; they called their tombs "houses of eternity," and they left nothing undone which would enable them to rise again and to enjoy immortality. A moment's consideration will show that only the rich could indulge in costly tombs and tomb furniture, and expensive mummification, but the poorest men hoped to enter the kingdom of Osiris and to partake of everlasting life, for the priests worked out means whereby they could safely dispense with the pomps and ceremonies which attended the burial of the rich. The righteous man, rich or poor, who was provided with words of power, could make himself independent of the ordinary limits of time and space, and obtain everything he wanted. The following extracts from Chapter CXXVI of the Book of the Dead illustrate the prayers of the Egyptians: "Hail, ye four Ape-gods who sit in the "front of the Boat of Rā, who convey Truth to the God of the "Universe, who sit in judgment on my wickedness and on my "virtue, who satisfy the gods with the flames of your mouths, "who offer offerings to the gods, and funerary food to the "spirits, who live on Truth, who feed on truth of heart, in "whom is neither deceit nor fraud, who abominate wickedness, "do away my evil deeds, put away my sin, and remove every-"thing which maketh a barrier between you and me. Let me "journey through Ammeḥet, let me enter Restau, let me pass "through the secret doors of the Other World. Let cakes "and ale be given to me as to the Spirits, and let me go in

"and come out from Restau." The Ape-gods reply: "Come, "for we have done away thy wickedness, and put away thy "sin, and we have destroyed all the evil which appertained to "thee on earth. Thou shalt enter Restau, and pass through "the secret doors of the Other World. Cakes and ale shall "be given unto thee, thou shalt go in and out at thy desire, "even as do those who are favoured of the god, and thou "shalt be proclaimed each day on the horizon."

3. Egyptian Gods.

THE following is a list of the principal Egyptian gods and goddesses, with their names in hieroglyphics; at the end of it will be found pictures of 57 of them, outlined in the forms in which they most commonly occur :—



ÅFU-RĀ, the Sun-god of might.

ÅMEN, ÅMEN-RĀ. Originally a local god of Thebes, he usurped the attributes of all the great gods, and when joined to Rā, he was regarded as the "king of the gods." His name is often found joined to that of AMSU, or MENU, and as such he is the god of generation and fecundity. A certain kind of Ram was sacred to him.

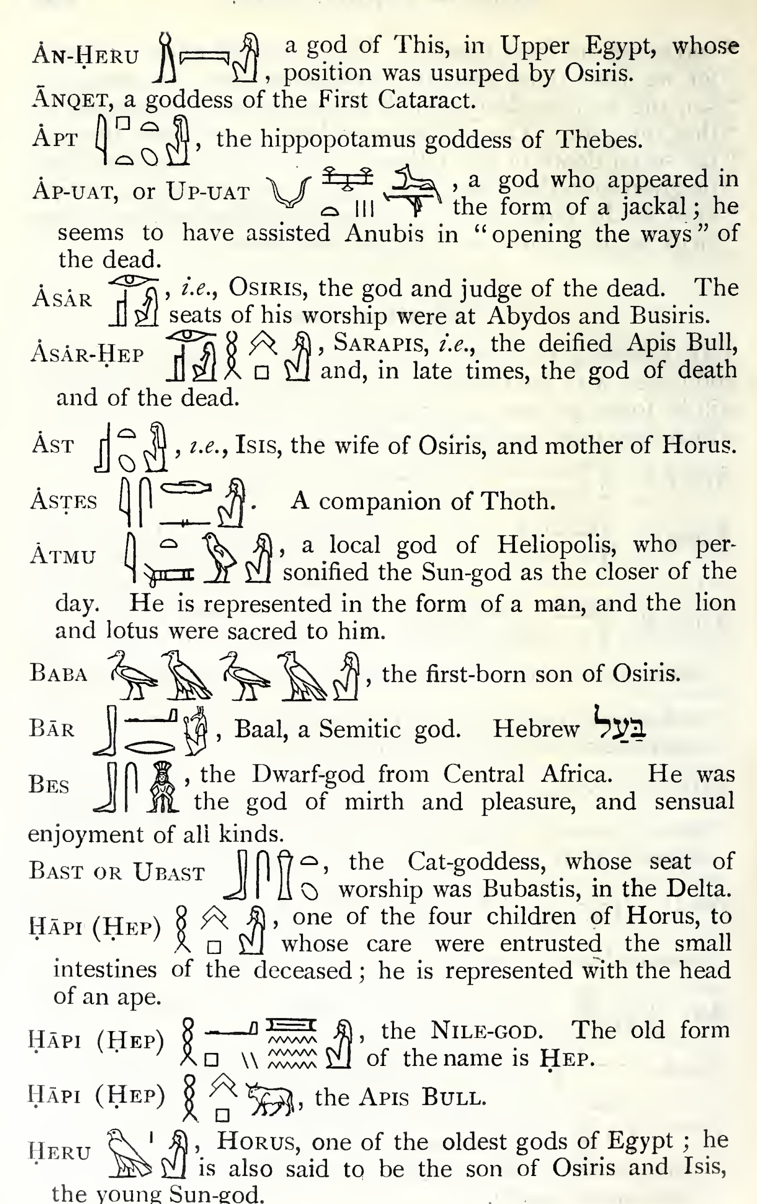
ÅMSET (or perhaps ÅGESET), one of the four children of Horus, to whose care were entrusted the stomach and large intestines of the deceased; he is represented with the head of a man.

ÅM-UT, a dog-headed god of the dead; his symbol is a pied headless bull skin attached to a rod which rests in a bowl.

ÅNI, a form of the Moon-god. His female counterpart was ÅNIT.

ĀNTÅT, a goddess of war and hunting; she was of Syrian origin. (Anaitis.)

ÅNPU, the divine physician, who assisted at the embalmment of Osiris, and was the guardian of all mummies. He was present at the Judgment. The jackal was sacred to him.



ÅN-ḤERU [hieroglyphs], a god of This, in Upper Egypt, whose position was usurped by Osiris.

ĀNQET, a goddess of the First Cataract.

ÅPT [hieroglyphs], the hippopotamus goddess of Thebes.

ÅP-UAT, or UP-UAT [hieroglyphs], a god who appeared in the form of a jackal; he seems to have assisted Anubis in "opening the ways" of the dead.

ÅSÅR [hieroglyphs], *i.e.*, OSIRIS, the god and judge of the dead. The seats of his worship were at Abydos and Busiris.

ÅSÅR-ḤEP [hieroglyphs], SARAPIS, *i.e.*, the deified Apis Bull, and, in late times, the god of death and of the dead.

ÅST [hieroglyphs], *i.e.*, ISIS, the wife of Osiris, and mother of Horus.

ÅSṬES [hieroglyphs]. A companion of Thoth.

ÅTMU [hieroglyphs], a local god of Heliopolis, who personified the Sun-god as the closer of the day. He is represented in the form of a man, and the lion and lotus were sacred to him.

BABA [hieroglyphs], the first-born son of Osiris.

BĀR [hieroglyphs], Baal, a Semitic god. Hebrew בַּעַל

BES [hieroglyphs], the Dwarf-god from Central Africa. He was the god of mirth and pleasure, and sensual enjoyment of all kinds.

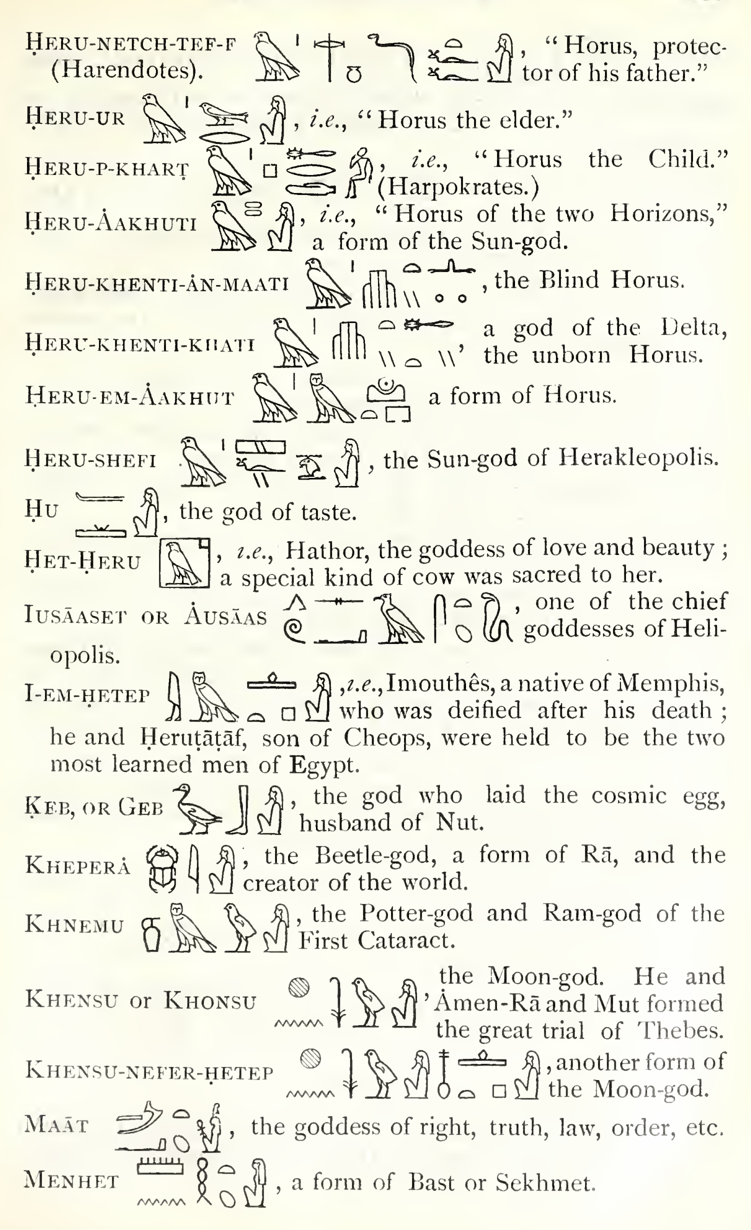
BAST OR UBAST [hieroglyphs], the Cat-goddess, whose seat of worship was Bubastis, in the Delta.

ḤĀPI (ḤEP) [hieroglyphs], one of the four children of Horus, to whose care were entrusted the small intestines of the deceased; he is represented with the head of an ape.

ḤĀPI (ḤEP) [hieroglyphs], the NILE-GOD. The old form of the name is ḤEP.

ḤĀPI (ḤEP) [hieroglyphs], the APIS BULL.

ḤERU [hieroglyphs], HORUS, one of the oldest gods of Egypt; he is also said to be the son of Osiris and Isis, the young Sun-god.



ḤERU-NETCH-TEF-F (Harendotes), "Horus, protector of his father."

ḤERU-UR, *i.e.*, "Horus the elder."

ḤERU-P-KHARṬ, *i.e.*, "Horus the Child." (Harpokrates.)

ḤERU-ÅAKHUTI, *i.e.*, "Horus of the two Horizons," a form of the Sun-god.

ḤERU-KHENTI-ÅN-MAATI, the Blind Horus.

ḤERU-KHENTI-KHATI, a god of the Delta, the unborn Horus.

ḤERU-EM-ÅAKHUT a form of Horus.

ḤERU-SHEFI, the Sun-god of Herakleopolis.

ḤU, the god of taste.

ḤET-ḤERU, *i.e.*, Hathor, the goddess of love and beauty; a special kind of cow was sacred to her.

IUSĀASET OR ÅUSĀAS, one of the chief goddesses of Heliopolis.

I-EM-ḤETEP, *i.e.*, Imouthês, a native of Memphis, who was deified after his death; he and Ḥeruṭāṭāf, son of Cheops, were held to be the two most learned men of Egypt.

ḲEB, OR GEB, the god who laid the cosmic egg, husband of Nut.

KHEPERÅ, the Beetle-god, a form of Rā, and the creator of the world.

KHNEMU, the Potter-god and Ram-god of the First Cataract.

KHENSU OR KHONSU, the Moon-god. He and Åmen-Rā and Mut formed the great trial of Thebes.

KHENSU-NEFER-ḤETEP, another form of the Moon-god.

MAĀT, the goddess of right, truth, law, order, etc.

MENHET, a form of Bast or Sekhmet.

MENTU, a War-god of Hermonthis and Thebes.

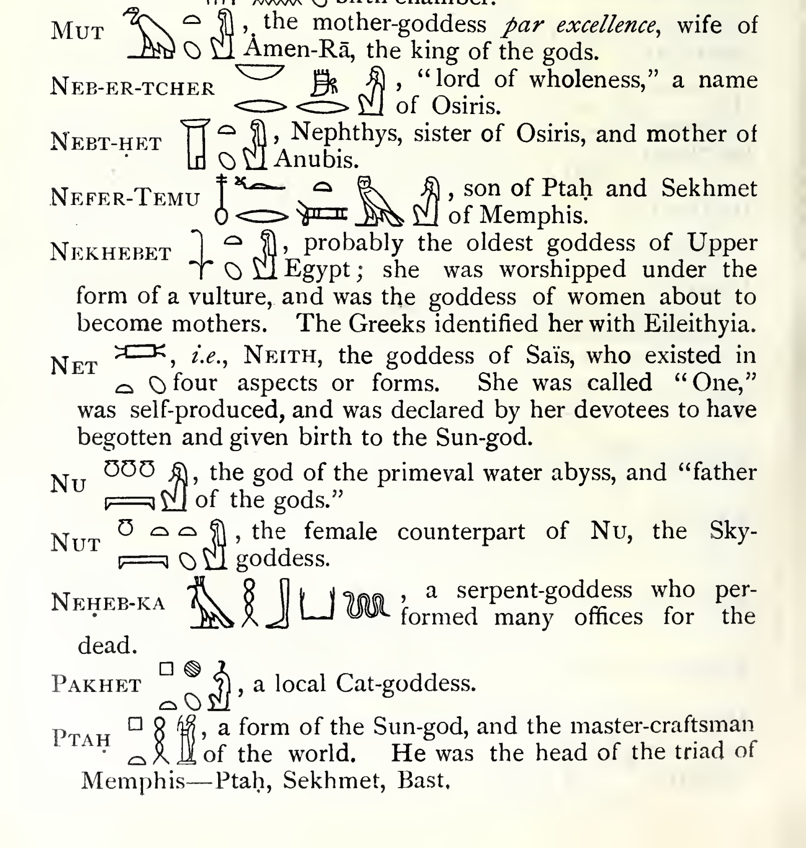
MENU, OR MIN a god of generation and fecundity; he is usually represented as an ithyphallic man.

MENUR (?) *i.e.* MNEVIS, the sacred bull of On.

MEḤ-URT, a sky-goddess, who is depicted in the form of a cow.

MERSEGERT, a goddess of the Underworld, who is depicted in the form of a woman-headed serpent.

MESKHENET, a goddess who presided over the birth-chamber.



MUT, the mother-goddess *par excellence*, wife of Åmen-Rā, the king of the gods.

NEB-ER-TCHER, "lord of wholeness," a name of Osiris.

NEBT-ḤET, Nephthys, sister of Osiris, and mother of Anubis.

NEFER-TEMU, son of Ptaḥ and Sekhmet of Memphis.

NEKHEBET, probably the oldest goddess of Upper Egypt; she was worshipped under the form of a vulture, and was the goddess of women about to become mothers. The Greeks identified her with Eileithyia.

NET, *i.e.*, NEITH, the goddess of Saïs, who existed in four aspects or forms. She was called "One," was self-produced, and was declared by her devotees to have begotten and given birth to the Sun-god.

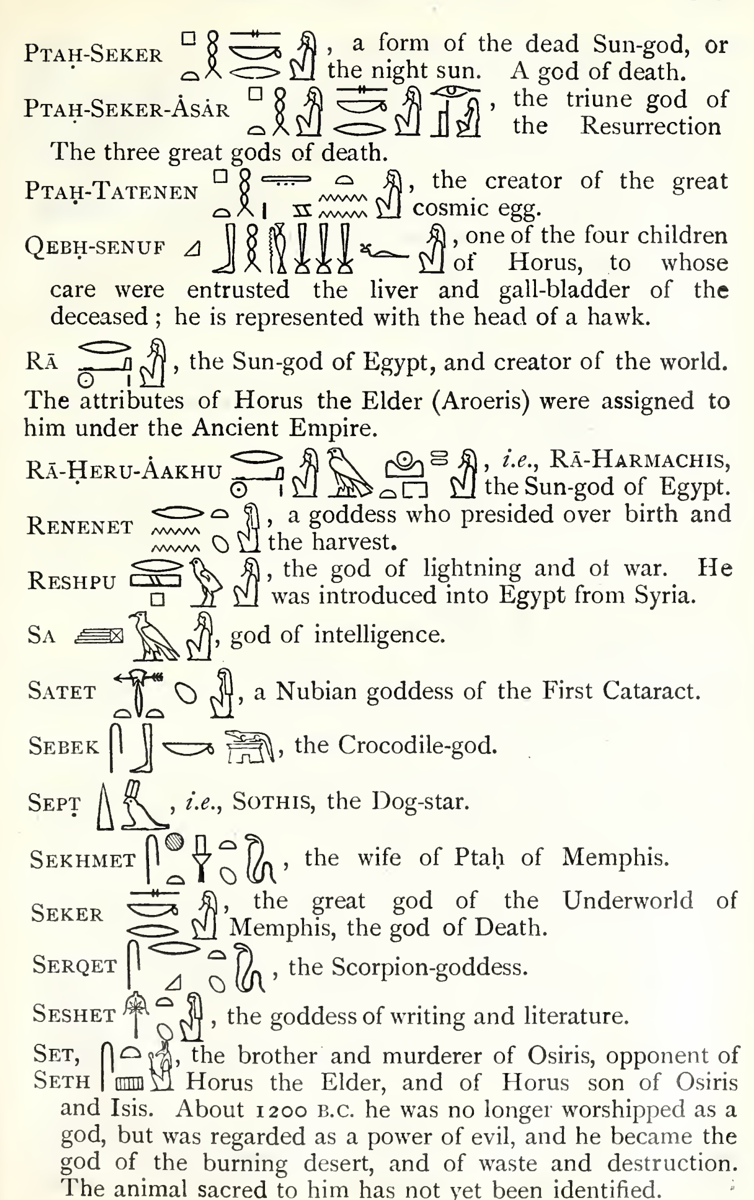
NU, the god of the primeval water abyss, and "father of the gods."

NUT, the female counterpart of NU, the Sky-goddess.

NEḤEB-KA, a serpent-goddess who performed many offices for the dead.

PAKHET, a local Cat-goddess.

PTAḤ, a form of the Sun-god, and the master-craftsman of the world. He was the head of the triad of Memphis—Ptaḥ, Sekhmet, Bast.



PTAḤ-SEKER, a form of the dead Sun-god, or the night sun. A god of death.

PTAḤ-SEKER-ÅSÅR, the triune god of the Resurrection The three great gods of death.

PTAḤ-TATENEN, the creator of the great cosmic egg.

QEBḤ-SENUF, one of the four children of Horus, to whose care were entrusted the liver and gall-bladder of the deceased; he is represented with the head of a hawk.

RĀ, the Sun-god of Egypt, and creator of the world. The attributes of Horus the Elder (Aroeris) were assigned to him under the Ancient Empire.

RĀ-ḤERU-ÅAKHU, *i.e.*, RĀ-HARMACHIS, the Sun-god of Egypt.

RENENET, a goddess who presided over birth and the harvest.

RESHPU, the god of lightning and of war. He was introduced into Egypt from Syria.

SA, god of intelligence.

SATET, a Nubian goddess of the First Cataract.

SEBEK, the Crocodile-god.

SEPṬ, *i.e.*, SOTHIS, the Dog-star.

SEKHMET, the wife of Ptaḥ of Memphis.

SEKER, the great god of the Underworld of Memphis, the god of Death.

SERQET, the Scorpion-goddess.

SESHET, the goddess of writing and literature.

SET, SETH, the brother and murderer of Osiris, opponent of Horus the Elder, and of Horus son of Osiris and Isis. About 1200 B.C. he was no longer worshipped as a god, but was regarded as a power of evil, and he became the god of the burning desert, and of waste and destruction. The animal sacred to him has not yet been identified.

SHAI [hieroglyphs], god of luck, or destiny.

SHU [hieroglyphs], god of the air, and bearer up of the sky. It was he who separated Nut from the embrace of Geb, *i.e.*, the sky from the earth. His female counterpart was TEFNUT.

SUTEKH [hieroglyphs], a god of the Syrians and Hittites identified with SET.

TANEN [hieroglyphs]
TA-TENEN [hieroglyphs] } a cosmic god.

TA-URT [hieroglyphs], the Hippopotamus-goddess.

TEFNUT [hieroglyphs], the female counterpart of SHU.

TEHUTI, *i.e.*, THOTH, [hieroglyphs], the scribe of the gods, inventor of astronomy and mathematics. The divine Advocate who obtained the acquittal of Osiris in the Hall of Judgment at Memphis.

TEMU [hieroglyphs]. See ÅTMU.

TETUN [hieroglyphs] an ancient god of the Northern Sûdân, whose principal sanctuary seems to have been at Samnah, in the Second Cataract.

TUAMUTEF [hieroglyphs], one of the four children of Horus, to whose care were entrusted the heart and lungs of the deceased; he is represented with the head of a jackal.

UATCHIT [hieroglyphs], one of the oldest goddesses of Lower Egypt; the seat of her worship was at Per-Uatchit, a city which was called by the Greeks Buto.

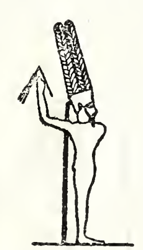
UN-NEFER [hieroglyphs], a name of Osiris. The name means "Good Being."

URT-HEKAU [hieroglyphs], a form of Isis, as the great inventress of spells and incantations.

The principal sacred birds, animals, etc., were:—The **hawk**, sacred to solar gods; the **vulture**, sacred to Mut and cognate gods; the **ibis**, sacred to Thoth; the **ram**,

sacred to Khnemu, Åmen, Osiris, etc.; the **lion,** sacred to Temu, Horus, Åker, etc.; various kinds of **bulls,** sacred to Apis, Mnevis, Osiris, Åmen, etc.; the **cow,** sacred to Hathor and cognate gods; the **cat,** sacred to Bast; the **ichneumon,** sacred to Uatchit; the **sow,** sacred to Isis; the **hare,** sacred to Osiris; the **jackal,** sacred to Anubis, Ap-uat, etc.; the **shrewmouse,** sacred to Horus; the **dog-headed ape,** sacred to Thoth; the **hippopotamus,** sacred to Hathor; various kinds of **fish,** sacred to Ḥat-meḥit and other deities; the **crocodile,** sacred to Sebek; the **scorpion,** sacred to Selqet; the **beetle,** sacred to Rā and Kheperå; the **uræus,** sacred to Nekhebit, Uatchit, and other goddesses; various kinds of **serpents,** sacred to Seker and to many earth gods and goddesses. The following group of illustrations gives the commonest form of the principal gods and goddesses as they are found both on the monuments and in papyri. The gods who were especially connected with the dead always appear in the form of a mummy, and nearly all of them bear or wear objects which indicate their special attributes :—


Åmen-Rā, King of the Gods.


The God Åmsu, or Menu.


Åmset, or Mestha, or Gestha (son of Horus).

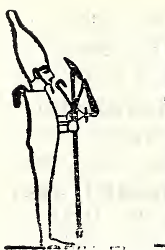

The Goddess Ånit.


The Goddess Āntat.


The God Ånpu (Anubis).


The Goddess Ānqet.

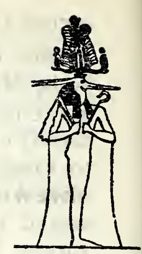

The God Åsår (Osiris).


The God Åsår (Osiris).


Åsår-Ḥāp (Serapis).


The Goddess Åst (Isis).


The God Åtmu.

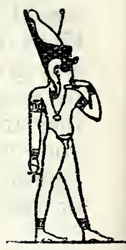

The God Bennu (*i.e.*, the Soul of Osiris).


The God Bes.

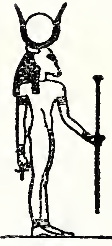

Ḥāpi, the Nile-God.


Ḥāpi (son of Horus).


The God Ḥeru (Horus).


Ḥeru-pa-khart (Harpokrates).


The Goddess Hathor.


The Goddess Hathor.


The Goddess Hathor.


The God Geb.


The Goddess Ketesh


The God Kheperå.


The God Khnemu.


The God Khensu.


The Goddess Maāt.


The Goddess Menhet.


The God Mentu-Rā.


Mert, Goddess of the Inundation.


The Goddess Mut.


The Goddess Nebt-ḥet (Nephthys).


The Goddess Nebt-het (Nephthys).


The God Nefer-Temu.


The Goddess Nekhebet.


The Goddess Net (Neith).


The Goddess Nut.


The God Ptaḥ.


The God Ptaḥ-Seker.


Qebḥsenuf (Son of Horus).


The God Rā-Harmachis.


The Goddess Renenet.


The God Reshpu.


The God Reshpu.


The Goddess Satet.


The God Sebek.


Sefekh-Ābiu, or Sesheta.


The God Seker.



The Goddess Sekhmet. The Goddess Serqet. The God Set. The Goddess Ta-urt (Thoueris). Ṭet, a form of Osiris.

The God Teḥuti (Thoth). Ṭuamutef (Son of Horus). The Goddess Uatchit. The Goddess Upt-Ḥekau.

The Vulture Goddess Mut, holding in her talons emblems of eternity and the plumes of Upper and Lower Egypt.

4. The Egyptian Language and Writing.

The Egyptian **language** has formed the subject of many lengthy and learned dissertations, and even at the present day scholars are not agreed as to the exact place which must be assigned to it among the African and Asiatic languages. It contains fundamental elements of African origin, and a very large number of biliteral words in it have been preserved from pre-dynastic times; on the other hand, there are found, even in early texts, many triliteral words, which in the ordinary way we should say were of Semitic origin. Besides these, there are several words—*e.g.*, the pronouns—which are identical in form

and meaning with genuine Semitic words; and there are, of course, a considerable number of loan words, of which the Hebrew originals are well known. These facts have induced some writers to assert that the ancient Egyptian language was Semitic, and to discuss it as if it were a Semitic dialect; but it is far more likely to have desscended from an African language which possessed certain characteristics in common with the older forms of some of the Semitic dialects now known to us.

The oldest form of Egyptian **writing** is the **hieroglyphic**, in which the various objects, animate and inanimate, which the pictures represent are depicted as accurately as possible. A remarkable peculiarity of hieroglyphic writing is the slight modification of form which the characters have suffered during a period of thousands of years, but it will be readily understood that such an elaborate system of writing became extremely inconvenient under certain circumstances. So long as inscriptions were of a ceremonial or funereal character, and were intended to last for a very long time, it was natural enough to make use of elaborately drawn or carved pictures of objects; but in the case of letters and documents which concerned the ordinary business of life the picture system was found to be too cumbrous in cases where haste was required. The scribes, when writing upon papyrus, or making drafts of inscriptions which had to be cut in stone afterwards, began by abbreviating and modifying the characters, taking care, however, that the most salient characteristics of the object represented were preserved.

Little by little the hieroglyphics lost much of their pictorial character, and many of them degenerated into signs, which formed the **cursive writing** which ancient and modern scholars have called **Hieratic.** This was extensively used by the priests in all periods, and though it occupied originally a subordinate position in respect of hieroglyphics, a good knowledge of it was of great importance to the learned in Egypt. Soon after the rule of the XXIInd dynasty the scribes invented a series of purely arbitrary or conventional modifications of the hieratic characters, and so a new style of writing called **Enchorial** or **Demotic** came into existence. It was used at first chiefly for business or social purposes, but finally copies of the *Book of the Dead* and lengthy literary compositions were written in it. In the Ptolemaic period Demotic was considered to be of such importance that whenever the text of a royal decree was inscribed upon a stele which was to be set up

in some public place, and was intended to be read by the public in general, a version of the said decree written in the Demotic character was added. Thus on the Rosetta Stone the Demotic inscription occupies the middle portion of the face of the stone, and when this stone was fixed on its pedestal the Demotic text was probably on the eye line of the beholder; the hieroglyphic version was above it, and the Greek below. In the case of the Rosetta Stone the decree of the priests which is cut upon it is probably a copy of the original document from which the hieroglyphic transcript and the Greek translation were made.

The later equivalent of the ancient Egyptian language is called **Coptic,** and of this four or five dialects are known. Its name is derived from the name of the old Egyptian city, Qebt, through the Arabic Qubṭ, which in its turn was intended to represent the Greek *Αἰγύπτος.* The literature written in Coptic is chiefly Christian; some think that the Holy Scriptures were translated into it in the second century, and some hold that this did not take place until the fourth century, and others assert that it was not until the eighth century that a translation of the whole of the Old Testament was made into Coptic. Curiously enough, Coptic is written with the letters of the Greek alphabet, to which were added six characters derived from the Demotic forms of ancient Egyptian hieroglyphics, to express sounds which were peculiar to the Egyptian language.

The hieroglyphic system of writing ceased to be in general use long before the close of the Roman rule in Egypt, and the place, both of it and of hieratic, was taken by Demotic; the widespread use of Greek and Latin among the governing and upper classes of Egypt also caused the disappearance of Egyptian as the language of state. The study of hieroglyphics was prosecuted by the priests probably until the end of the fifth century of our era, but very little later the ancient inscriptions had become absolutely a dead letter, and, until the beginning of the nineteenth century, there was neither an Oriental nor a European who could either read or understand a hieroglyphic inscription. In the eighteenth century Warburton divined the existence of alphabetic characters, De Guignes rightly guessed that some of the signs were determinatives, and Zoëga thought that the hieroglyphics were letters, and that the oval rings, ⊂⊃, or cartouches, contained royal names. In 1799 the **Rosetta Stone** was found among the ruins of

Fort Saint Julien at Rosetta by M. Boussard, but it came into the possession of the British a year later, and in 1802 was deposited in the British Museum. The inscription on the stone is a decree of the priests of Memphis, in which the good deeds of **Ptolemy V, Epiphanes,** 205 B.C. to 181 B.C., are enumerated, and it orders that divine honours shall be paid to him; it further decrees that statues of the king shall be set up in every temple of Egypt, and orders that a copy of the decree, inscribed on a basalt stele in Hieroglyphic, Demotic, and Greek characters, shall be set up in each of the first, second, and third grade temples near the king's statue. The importance of this stone is very great, for the decipherment of hieroglyphics is centred in it, and it supplied the clue which has resulted in the restoration of the ancient Egyptian language and literature.

When the Rosetta Stone was first discovered, Napoleon Bonaparte ordered it to be taken to Cairo, and placed in a building with the other monuments which his soldiers had collected, for he intended to found an Academy there. He caused lithographic copies of the inscriptions to be prepared, and these he distributed among the *savants* of Europe; the Greek version was first translated into French and Latin by Ameilhon, and Akerblad, a Swede, identified some of the royal names in the Demotic text, and published a Demotic alphabet in 1802. Between 1814 and 1818 Dr. Thomas Young proved the existence of alphabetic and syllabic characters in hieroglyphic writing, and he identified correctly the names of six gods, and those of Ptolemy and Berenice; he also discovered the true values of six letters of the alphabet, and the correct consonantal values of three more. This he did some years before Champollion published his Egyptian alphabet, and as priority of publication must be accepted as indication of priority of discovery, credit should be given to Young for at least this contribution towards the decipherment of Egyptian hieroglyphics. About the year 1818 the cartouche of Cleopatra was correctly identified by Mr. Bankes from a bilingual inscription in Greek and hieroglyphs, which mentioned two Cleopatras and one Ptolemy. In 1822 Champollion published a masterly dissertation on hieroglyphics, and incorporated in it the correct results of Young's labours; his philological and linguistic studies enabled him to carry the work much further than ever Young could have done, and his subsequent labours

form the foundation of the modern science of Egyptology. For the superstructure we have to thank—to mention the names of dead Egyptologists only—Birch, Lepsius, Hincks, Brugsch, Chabas, Dümichen, and de Rougé. The hieroglyphic spellings of the names Ptolemy, Cleopatra, Berenice, Arsinoë, Tiberius Cæsar, and Alexander, and the values assigned to the characters by the early workers, are as follows:—

(P T O L M I S) = PTOLEMY.

(K L A or E O P A T R A T ...) = CLEOPATRA.

(B E R N I K A T ...) = BERENICE.

(A R R ... S N A T ...) = ARSINOË.

(T B R I S K I S R S) = TIBERIUS CÆSAR.

(A R K S N T R S) = ALEXANDER.

Further investigations of the hieroglyphic forms of the names and titles of Greek and Roman kings and emperors, and of their wives and daughters, enabled Champollion to deduce the syllabic values of other signs, and at length to compile a classified syllabary. The letters which he collected from the proper names and titles of Greek and Roman rulers of Egypt may be given in tabular form, thus:—

Sign	Value	Sign	Value
	A		P
	A or E	,	M
	Ā	,	N
or	I	,	R, L
, ,	O or U		H
	B		H

	KH		TCH
,	S		K
	T		K
	T		K
	T		

It will be noticed that we have three different kinds of K, three of T, two of H, and three of A. At the early date when the values of the hieroglyphics were first recovered it was not possible to decide the exact difference between the varieties of sounds which these letters represented; the values of the letters of the complete alphabet are as follows:—

א		A	ח		Ḥ
		Ȧ	خ (Arabic)		KH (or χ)
ע		Ā	ס		S
	or	I	שׂ		S
ו	or	U	שׁ		SH (or Ś)
ב		B	כ		K
פ		P	ק		Q
פ		F	ג		Ḳ (or G)
מ	or	M	ת	,	T
נ	or	N	ט		Ṭ (or DH)
ר		R	ת		TH (or θ)
ל		L	צ		TCH (or T́)
ה		H			

The Egyptian alphabet has, in respect of guttural and other sounds, something in common with the Semitic dialects, and therefore the letters of the Hebrew alphabet have been added for purposes of comparison.

Every hieroglyphic character is a picture of some object, animate or inanimate. The simplest use of hieroglyphics is, of course, as *pictures*, thus :— , a hare, an owl, a bull, a wasp or hornet, a lotus flower, a head, a star, a pyramid, a leg and foot, and so on. But hieroglyphics may also represent *ideas*, *e.g.*, a wall falling down sideways represents the idea of "falling"; a hall in which deliberations by wise men were held represents the idea of counsel; a man grasping a staff indicates the act of striking, fight, contest, etc.; a musical instrument represents the idea of pleasure, happiness, joy, and so on. Characters used in this way are called *ideographs*. Now every picture of every object must have had a name, or we may say that each picture was a word-sign, and a list of these arranged in proper order would have made a dictionary in the earliest times. But if it were necessary to write the name of a foreign potentate, or of some object, a scribe would have to employ a number of characters which possessed the requisite sound values, without any regard to their meaning as pictures.

Let us take the name "Alexander," one form of which was A L K S N T R S. Now the first sign is a picture of a reed, the second and seventh of a mouth, the third of a bowl with a ring handle, the fourth and eighth of a door-bolt, the fifth of the surface of rippling water, and the sixth of a cake; in this name each of these characters is employed for the sake of its *sound* only. In one case, , a sign is used to express the sounds of both L and R, unless the name was pronounced "Al[e]ks[a]ntl[e]s." The need for characters which could be employed to express *sounds only* caused the

Egyptians at a very early date to set aside a considerable number of picture signs for this purpose, and to these the name of *phonetics* has been given. Phonetics are of two classes, alphabetic and syllabic. The alphabetic phonetics have already been given, and examples of syllabic phonetic characters are the following:— *āshem*, *nār*, *kheper*, *ḥen*, *pet*, *uat*, *nef*, *ḥetep*, and so on. In the earliest dynastic inscriptions known to us, hieroglyphic characters are used as pictures, ideographs, and phonetics side by side, which proves that these distinctions must have been invented in pre-dynastic times.

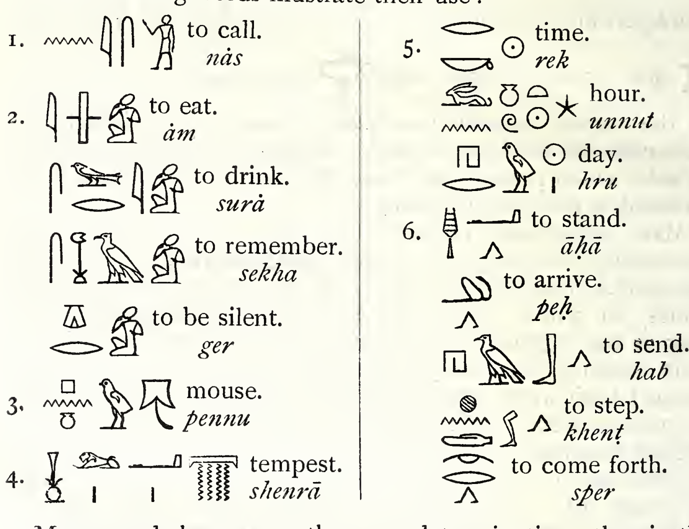
Many ideographs possess more than one phonetic value, in which case they are called **polyphones**; and many ideographs representing entirely different objects have similar values, in which case they are called **homophones**. So long as the Egyptians used picture writing pure and simple their meaning was easily understood, but when they began to spell their words with alphabetic signs and syllabic values of picture signs, which had no reference whatever to the original meaning of the signs, it was at once found necessary to indicate in some way the meaning and even sounds of many of the words so written; this they did by adding to them signs which are called **determinatives**. Thus, in the word *tekhen*, , "obelisk," the sign for obelisk is the specific determinative of the word *tekhen*. As examples of the use of general determinatives may be mentioned:—

1. a man beckoning with his right hand, which is raised; determinative of "to call."
2. a man seated, with his hand to his mouth; determinative of to eat, to think, to speak, etc.
3. a hide of an animal; determinative of animal.
4. rain falling from the sky; determinative of storm, thunder, etc.

5. ☉ the solar disk; determinative of time.

6. Λ a pair of legs; determinative of actions performed by the legs.

The following words illustrate their use:—

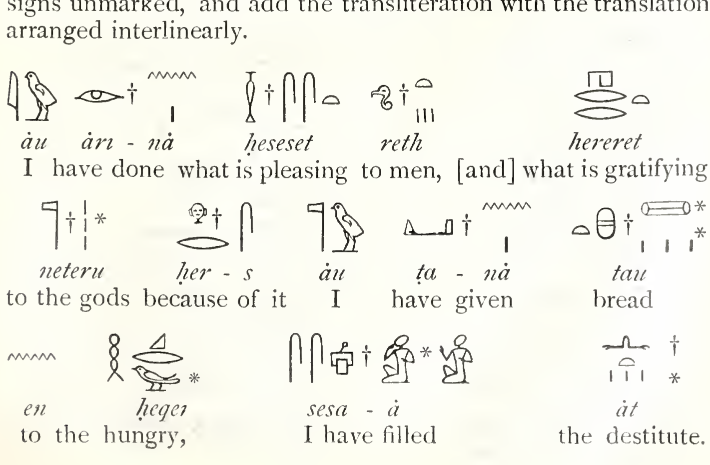


Many words have more than one determinative: thus in the word *qebḥ* "cool water" the last three characters are determinatives; in the word *shāṭ* "to slay," , and are determinatives; and in the word *rekhit* "rational beings" , the sign is a determinative of sound, are determinatives showing that men and women are referred to, and | is the determinative of plurality. In the word *nemmeḥu* "poor folk" the pictures of a child , and a man , and a woman

are the determinatives, and show that the word *nemmeḥ* means a number of human beings of both sexes who are in the condition of helpless children.

We have seen how ideographs, and alphabetic and syllabic phonetic signs, and determinatives may be used in writing words; let us now take a connected passage from a text and observe how the hieroglyphics are arranged therein. The passage reads :—

We will now break up the extract into words, for whether written horizontally or perpendicularly the words of an inscription are never separated from each other by the Egyptians; we will mark the determinatives by an asterisk * and the syllabic values by a dagger †, and leave the alphabetic signs unmarked, and add the transliteration with the translation arranged interlinearly.



àu I — *shes - nà* have followed — *neter* god — *em* in his — *per - f* house, — *àn* not

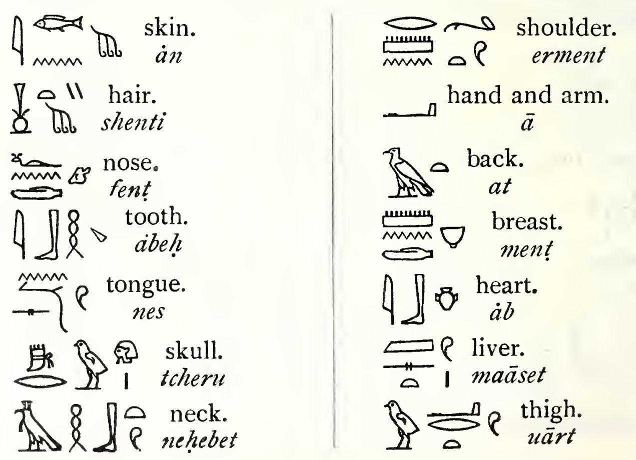
āa was magnified — *re-à* my mouth — *em* against — *shenit* the nobles, — *àn* not

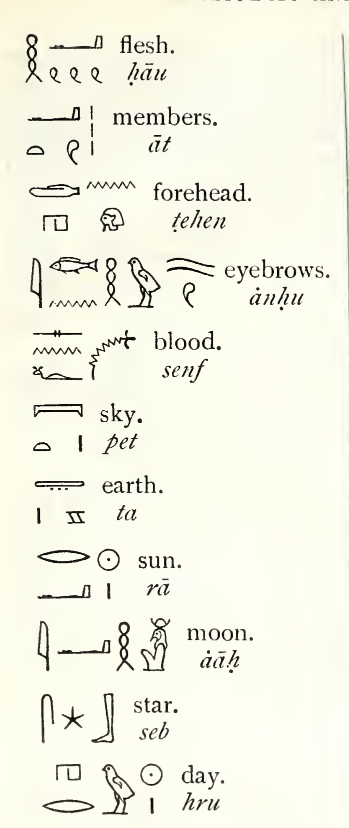
peṭ making long — *nemmat-à* my stride, — *shem - à* I walked — *ḥer sa* according to

khenṭ the step of — *sheps* dignity, — *àri - nà* I acted — *em* according to — *maāt* the law

mer beloved — *en* of the — *nesu* king.

The following common words will also illustrate the use of phonetics and determinatives :—





night. *gerḥ*

elephant. *abu*

crocodile. *emsuḥ*

flea. *pi*

first-born. *semsu*

fiend. *sebȧu*

horse. *ḥetrȧ*

worm. *fenṭ*

mortals. *rekhit*

hippopotamus. *ṭebt*

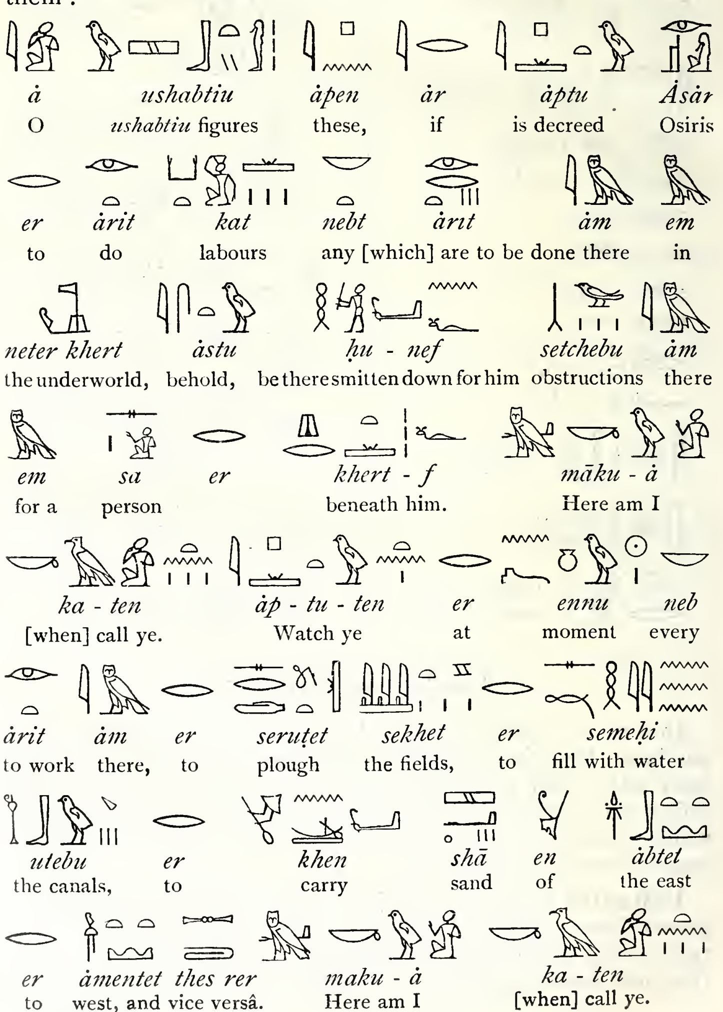
boat. *uȧa*

5. Amulets and Mummies.

In a room attached to the Egyptian Museum visitors may purchase Egyptian antiquities, and as many travellers take away with them a scarab or a *ushabti* figure, or some small object which was buried with the mummy, the following notes, which explain the commonest of them, and a short account of mummification, are added :—

Ushabtiu figures are made of stone, alabaster, wood, and glazed *faïence*, and are in the form of the god Osiris, who is here represented in the form of a mummy. They were placed in the tomb to do certain agricultural works for the deceased, who

was supposed to be condemned to sow the fields, to fill the canals with water, and to carry sand from the East to the West. They are usually inscribed with the VIth Chapter of the *Book of the Dead.* As many travellers buy *ushabtiu* figures in Egypt, the following version of the chapter may be of interest to them :—



That is to say, the deceased addresses each figure and says "O *ushabtiu* figures, if the Osiris," that is, the deceased, "is decreed to do any work whatsoever in the underworld may all obstacles be cast down in front of him!" The figure answers and says, "Here am I ready when ye call." The deceased next says, "O ye figures, be ye ever watchful to work, to plough and sow the fields, to water the canals, and to carry sand from the east to the west." The figure replies, "Here am I when ye call."

Amulets.—

1. The **Tet,** 𓎬, an internal organ of the body of Isis. It is usually made of red stone, symbolic of the blood of Isis; it was placed on the neck of the mummy to which it gave the magic protection of the blood of Isis. It was often inscribed with the CLVIth Chapter of the *Book of the Dead.*

2. The **Ṭeṭ,** 𓊽, or part of the backbone of Osiris, which had sometimes plumes, disk, and horns, , attached to it, was also placed on the neck of the mummy, and was often inscribed with the CLVth Chapter of the *Book of the Dead.*

3. The **Vulture,** 𓅐, was placed upon the neck of the mummy on the day of the funeral, and brought with it the protection of the "mother" Isis.

4. The **Collar,** 𓋒, was placed upon the neck of the mummy on the day of the funeral.

5. The **Papyrus Sceptre,** 𓇅, was placed upon the neck of the mummy, and typified the green youth which it was hoped the deceased would enjoy in the nether world.

6. The **Pillow,** 𓉱, usually made of hæmatite, was generally inscribed with the CLXVIth Chapter of the *Book of the Dead.*

7. The **Heart,** 𓄣, represented the "**soul of Kheperȧ.**"

8. The **Ānkh,** 𓋹, symbolised "Life."

9. The **Utchat,** or Symbolic Eye, 𓂀, typified "good health and happiness," and was a very popular form of amulet in Egypt.

10. The **Nefer,** 𓄤, represented "good-luck."

11. The **Sma,** 𓄤, represented "union."

12. The **Menȧt,** 𓈘, represented "virility."

13. The **Neha,** 𓉔, represented "protection."

14. The **Serpent's Head,** 𓆙, was placed in mummies to prevent their being devoured by worms.

15. The **Frog,** 𓆏, represented "fertility" and "abundance."

16. The **Stairs,** 𓊍, were the symbol of ascending to heaven.

17. The **Fingers,** index and medius, found inside mummies, represented the two fingers which the god Horus stretched out to help the deceased up the ladder to heaven.

Scarabs.—Scarab or Scarabæus (from the Greek σκαραβος) is the name given by Egyptologists to the myriads of models of a certain beetle, which are found in mummies and tombs and in the ruins of temples and other buildings in Egypt, and in other countries the inhabitants of which, from a remote period, had intercourse with the Egyptians. M. Latreille considered the species which he named *Ateuchus Aegyptiorum*, or ἡλιοκάνθαρος, and which is of a fine greenish colour, as that which especially engaged the attention of the early Egyptians, and Dr. Clarke affirmed that it was eaten by the women of Egypt because it was considered to be an emblem of fertility. This custom is common at certain places in the Sûdân at the present day. In these insects a remarkable peculiarity exists in the structure and situation of the hind legs, which are placed so near the extremity of the body, and so far from each other, as to give them a most extraordinary appearance when walking. This peculiar formation is, nevertheless, particularly serviceable to its possessors in rolling along the balls of excrementitious matter on which they feed. These balls are at first irregularly shaped and soft, but by degrees, and during the process of rolling along, become rounded and harder; they are propelled by means of the hind legs. Sometimes these balls are an inch and a half or two inches in diameter, and in rolling them along the beetles stand almost upon their heads, with heads turned from the balls. They do this in order to bury their balls in holes which they have already dug for them,

and it is upon the dung just deposited that the beetle feeds. It was formerly supposed that the ball which the creature rolled along contained many eggs, but the investigations of M. Fabre have shown that the ball only contains one egg. Horapollo thought that the beetle was self-produced, but he made this mistake on account of the females being exceedingly like the males, and because both sexes appear to divide the care of the preservation of their offspring equally between them.

The Egyptians called both the scarabæus Kheperȧ [hieroglyphs], and the god represented by this insect also Kheperȧ [hieroglyphs]. The god Kheperȧ was supposed to be the "father of the gods," and the creator of all things in heaven and earth; he made himself out of matter which he himself had made. He was identified with the rising sun and thus typified resurrection. The verb *Kheper* [hieroglyphs], which is usually translated "to exist, to become," also means "to roll," and "roller," or "revolver," was a fitting name for the sun. In a hieratic papyrus in the British Museum (No. 10,188), the god Kheperȧ is identified with the god Neb-er-tcher, who, in describing the creation of gods, men, animals, and things, says:—"I am he who evolved himself under the form of the "god Kheperȧ. I, the evolver of evolutions, evolved myself, "the evolver of all evolutions, after a multitude of evolutions "and developments* which came forth from my mouth (or at "my command). There was no heaven, there was no earth, "animals which move upon the earth and reptiles existed not "at all in that place. I constructed their forms out of the "inert mass of watery matter, I found no place there where

* The duplicate copy of this chapter reads, "I developed myself from "the primeval matter which I made. My name is Osiris, the germ of "primeval matter. I have worked my will to its full extent in this earth, "I have spread abroad and filled it. . . . . I uttered my name as a word "of power, from my own mouth, and I straightway developed myself by "evolutions. I evolved myself under the form of the evolutions of the "god Kheperȧ, and I developed myself out of the primeval matter which "has evolved multitudes of evolutions from the beginning of time. "Nothing existed on this earth [before me], I made all things. There "was none other who worked with me at that time. I made all evolutions "by means of that soul which I raised up there from inertness out of the "watery matter."

"I could stand. By the strength which was in my will
"I laid the foundation [of things] in the form of the god
"Shu and I created for them every attribute which they
"have. I alone existed, for I had not as yet made Shu to
"emanate from me, and I had not ejected the spittle which
"became the god Tefnut; there existed none other to work
"with me. By my own will I laid the foundations of all things,
"and the evolutions of the things, and the evolutions which
"took place from the evolutions of their births which took
"place through the evolutions of their offspring, became
"multiplied. My shadow was united with me, and I pro-
"duced Shu and Tefnut from the emanations of my body,
". . . . . . thus from being one god I became three gods
". . . . . . I gathered together my members and wept over
"them, and men and women sprang into existence from the
"tears which fell from my eye."

Scarabs may be divided into three classes :—**1. Funereal scarabs; 2. Scarabs worn for ornament; 3. Historical scarabs.** Of **funereal scarabs** the greater number found measure from half an inch to two inches, and are made of steatite glazed green, or blue, or brown, granite, basalt, jasper, amethyst, lapis-lazuli, carnelian, and glass. The flat base of the scarabs was used by the Egyptians for engraving with name of gods, kings, priests, officials, private persons, monograms and devices. Scarabs were set in rings and worn on the fingers by the dead and living, and were wrapped up in the linen bandages with which the mummy was swathed, and placed over the heart. The best class of funereal scarabs was made of a fine, hard green basalt, which, when the instructions of the rubric concerning them in the *Book of the Dead* were carried out, was set in a gold border, and hung from the neck by a fine gold wire. Such scarabs are sometimes joined to a heart on which is inscribed the legend "life, stability, and well-being" 𓋹𓊽𓄤. **Funereal scarabs** were also set in pectorals, and were in this case ornamented with figures of the deceased adoring Osiris. Scarabs of all kinds were kept in stock by the Egyptian undertaker, and spaces were left blank in the inscriptions* to add the names of the persons for whom they were bought. **Scarabs worn for ornament** exist in many thousands By an easy transition, the custom of placing scarabs on the

* The chapter usually inscribed upon these scarabs is No. 30 B.

bodies of the dead passed to the living, and men and women wore the scarab probably as a silent act of homage to the creator of the world, who was not only the god of the dead, but of the living also. **Historical scarabs** appear to be limited to a series of four, which were made during the reign of **Amenophis III** to commemorate certain historical events, viz.: 1. The slaughter of 102 lions by Amenophis during the first ten years of his reign; 2. A description of the boundaries of the Egyptian Empire, and the names of the parents of Queen Ti; 3. The arrival of Ti and Gilukhipa in Egypt, together with 317 women; 4. The construction of a lake in honour of Queen Ti.

Mummy.—Whether the art of mummifying was known to the aboriginal inhabitants of Egypt, or whether it was introduced by the newcomers from Asia, is a question which is very difficult to answer. But there is reason to think that the art of mummification in the proper sense of the word did not come into existence before the IInd or IIIrd dynasty. We know for a certainty that the stele of a dignitary preserved at Oxford was made during the reign of Sent, the fifth king of the IInd dynasty, about 4000 B.C. The existence of this stele, with its figures and inscriptions, points to the fact that the art of elaborate sepulture had reached a high pitch in those early times. The man for whom it was made was called [hieroglyphs] Sherà, and he held the dignity of [hieroglyphs] *neter ḥen*, or "prophet"; the stele also tells us that he was [hieroglyphs] *nesu rekht*, or "royal kinsman." The inscriptions contain prayers asking for the deceased in the nether-world "thousands of oxen, linen bandages, cakes, "vessels of wine, incense, &c.," which fact shows that religious belief, funereal ceremonies, and a hope for a life after death had already become a part of the life of the people of Egypt. During the reign of King Sent the redaction of a medical papyrus was carried out. As this work presupposes many years of experiment and experience, it is clear that the Egyptians possessed ample anatomical knowledge for mummifying a human body. Again, if we consider that the existence of this king is proved by papyri and contemporaneous monuments, and that we know the names of some of the priests

who took part in funereal ceremonies during his reign, there is no difficulty in acknowledging that the antiquity is great of such ceremonies, and that they presuppose a religious belief in the revivification of the body, for which hoped-for event the Egyptian took the greatest possible care to hide and preserve his body.

"Mummy" is the term which is generally applied to the body of a human being, or animal, bird, fish, reptile, which has been preserved from decay by means of bitumen, spices, gums, and natron. As far as can be discovered, the word is neither a corruption of the ancient Egyptian word for a preserved body, nor of the more modern Coptic form of the hieroglyphic name. The word "mummy" is found in Byzantine Greek and in Latin, and indeed in almost all European languages. It is derived from the Arabic مُومِيَا *mûmîâ*, "bitumen"; the Arabic word for mummy is مُومِيَّة *mumîyyat*, and means a "bitumenized thing," or a body preserved by bitumen. Originally *mûmîâ* meant "wax," and the Persians always employed this substance in treating their dead. But when the supply of this material failed, and bitumen was used in its stead, the word was applied to bitumen.

We obtain our knowledge of the way in which the ancient Egyptians mummified their dead from Greek historians, and from an examination of mummies. According to Herodotus (ii, 86) the art of mummifying was carried on by a special guild of men who received their appointment by law. These men mummified bodies in three different ways, and the price to be paid for preserving a body varied according to the manner in which the work was done. In the **first and most expensive method** the brain was extracted through the nose by means of an iron probe, and the intestines were removed entirely from the body through an incision made in the side with a sharp Ethiopian stone. The intestines were cleaned and washed in palm wine, and, having been covered with powdered aromatic gums, were placed in jars. The cavity in the body was filled up with myrrh and cassia and other fragrant and astringent substances, and was sewn up again. The body was next laid in natron for 70 days,* and when these were over, it was carefully washed, and afterwards wrapped up in strips of fine linen smeared on

* In Genesis l, 3, the number given is 40.

their sides with gum. The cost of mummifying a body in this fashion was a talent of silver, *i.e.*, about £240, according to Diodorus (i, 91, 92). In the **second method** of mummifying the brain was not removed at all, and the intestines were simply dissolved and removed in a fluid state. The body was also laid in salt or natron which, it is said, dissolved everything except the skin and bones. The cost of mummifying in this manner was 20 minae, or about £20. The **third method** of embalming was employed for the poor only. It consisted simply of cleaning the body by injecting some strong astringent, and then salting the body for 70 days. The cost in this case was very little. The account given by Diodorus agrees generally with that of Herodotus. He adds, however, that the incision was made on the left side of the body, and that the "dissector" having made the incision fled away, pursued and stoned by those who had witnessed the ceremony. It would seem that the dissector merely fulfilled a religious obligation in fleeing away, and that he had not much to fear. Diodorus goes on to say that the Egyptians kept the bodies of their ancestors in splendid chambers, and that they had the opportunity of contemplating the faces of those who died before their time. In some particulars he is right, and in others wrong. He lived too late (about 40 B.C.) to know what the well-made Theban mummies were like, and his experience therefore would only have familiarized him with the Egypto-Roman mummies, in which the limbs were bandaged separately, and the contour of their faces, much blunted, was to be seen through the thin and tightly drawn bandages which covered the face. In such examples the features of the face can be clearly distinguished underneath the bandages.

An examination of Egyptian mummies will show that the accounts given by Herodotus and Diodorus are generally correct, for mummies with and without ventral incisions are found, and some are preserved by means of balsams and gums, and others by bitumen and natron. The skulls of mummies, which may be seen by hundreds in caves and pits at Thebes, contain absolutely nothing, a fact which proves that the embalmers were able not only to remove the brain, but also to take out the membranes without injuring or breaking the nose in any way. The heads of mummies are found, at times, to be filled with bitumen, linen rags, or resin. The bodies, which have been filled with resin or some such substance, are of a greenish colour, and the skin has the

appearance of being tanned. Such mummies, when unrolled, perish rapidly and break easily. Usually, however, the resin and aromatic gum process is favourable to the preservation of the teeth and hair. Bodies from which the intestines have been removed, and which have been preserved by being filled with bitumen, are quite black and hard. The features are preserved intact, but the body is heavy and unfair to look upon. The bitumen penetrates the bones so completely that it is sometimes difficult to distinguish what is bone and what is bitumen. The arms, legs, hands, and feet of such mummies break with a sound like the cracking of chemical glass tubing; they burn freely. Speaking generally, they will last for ever. When a mummy has been preserved by natron, that is, a mixture of carbonate, sulphate, and muriate of soda, the skin is found to be very hard, and it hangs loosely from the bones in much the same way as it hangs from the skeletons of the monks preserved in the crypt beneath the Capuchin convent at Floriana in Malta. The hair of such mummies usually falls off when touched. When the friends of a dead Egyptian were too poor to pay for a good, expensive method of embalmment, the body could be preserved by two very cheap methods; one method was to soak it in salt and hot bitumen, and the other in salt only. In the salt and bitumen process every cavity of the body was filled with bitumen, and the hair disappeared. Clearly it is to the bodies which were preserved in this way that the name "mummy," or bitumen, was first applied. The salted and dried body is easily distinguishable. The skin is like paper, the features and hair have disappeared, and the bones are very brittle and white. The art of mummifying arrived at the highest pitch of perfection at Thebes. The mummies of the first six dynasties drop to pieces on exposure to the air, and smell slightly of bitumen; those of the XIth dynasty are of a yellowish colour and very brittle; those of the XIIth dynasty are black. The method of embalming varied at different periods and places. From the XVIIIth to the XXIst dynasties the Memphis mummies are black, while those made at Thebes during the same period are yellowish in colour, and have the nails of the hands and feet dyed yellow with the juice of the *ḥenna* plant. After the XXVIth dynasty the mummies made at both places are quite black and shapeless; they are also very heavy and tough, and can only be broken with difficulty. What the mummies which were made three or four hundred years after Christ are like, the writer, never having seen one unrolled, is unable

to say. About 100 B.C. the Greeks began to paint the portrait of the dead upon the wrappings which covered the face. The art of mummifying was carried on in Egypt for nearly 500 years after the birth of Christ, for the Greeks and Romans adopted the custom freely. We may therefore say that we know for a certainty that the art of embalming was known and practised for about 5,000 years.

In the account of embalming given us by Herodotus, we are told that the internal organs of the body were removed, but he does not say what was done with them. We now know that they also were mummified and were preserved in four jars, the covers of which were made in the shape of the heads of the four children of Horus, the genii of the dead, whose names were Mestȧ (or, Gestȧ), Ḥāpi, Ṭuamutef, and Qebḥsenuf. These genii have been compared with the four beasts in the Revelation (chap. iv, 7). The jars and the genii to whom they were dedicated were under the protection of Isis, Nephthys, Neith, and Serq respectively. They are called **Canopic jars**, because they resemble the vase shape of Osiris called Canopus, and they are made of Egyptian porcelain, marble, calcareous stone, terra-cotta, wood, etc. The jar of Mestȧ received the large intestines, that of Ḥāpi the smaller intestines, that of Ṭuamutef the heart, and that of Qebḥsenuf the liver. Each jar was inscribed with a legend stating that the goddess to whom it was dedicated protected and preserved the part of the dead body that was in it. In the case of poor people who could not afford a set of Canopic jars, it was usual to have a set of wax figures made in the shape of the four genii of the dead, and to place them in the dead body with the intestines, which were put back. In the time of the XXVIth dynasty, and later, poverty or laziness made people consider the interior parts of the body to be sufficiently well guarded if figures of these genii were roughly drawn on the linen bandages. It was customary at one time to lay a set of these figures, made of porcelain or bead-work, upon the chest of the mummy.

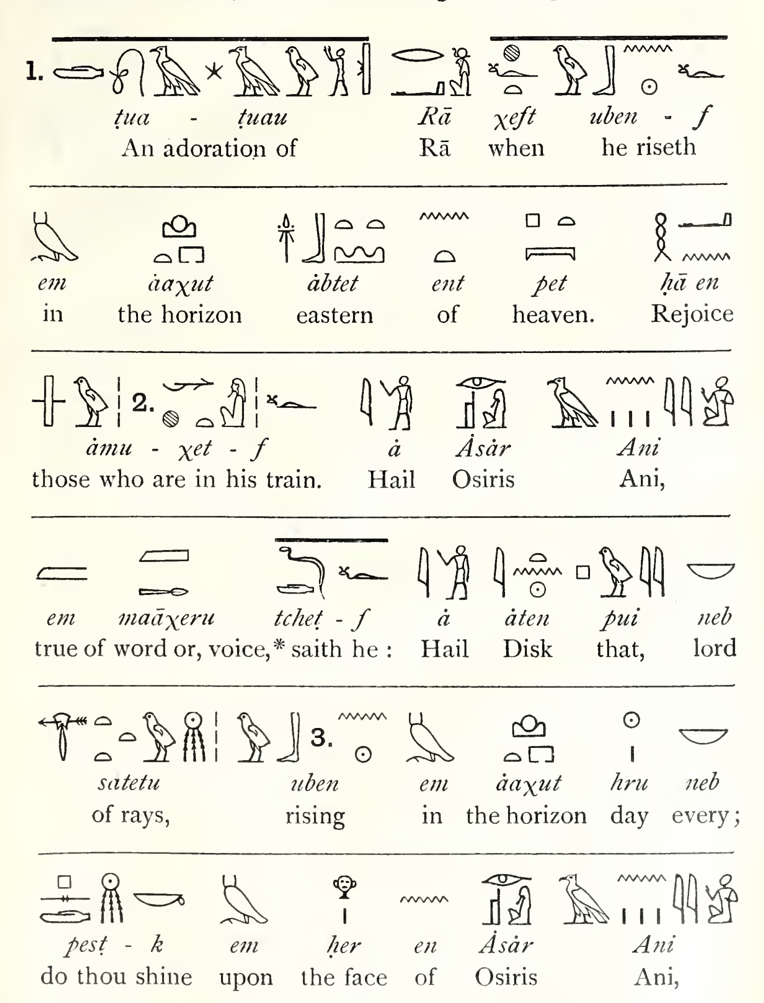
It was the fashion some years ago to state in books of history that the ancient Egyptian was a negro, and some distinguished historians still make this statement, notwithstanding Professor Owen's distinct utterance, "taking the sum of the correspond-"ence notable in collections of skulls from Egyptian graveyards "as a probable indication of the hypothetical primitive race "originating the civilised conditions of cranial departure from

"the skull-character of such race, that race was certainly not "of the Australoid type, is more suggestive of a northern "Nubian or Berber basis. But such suggestive characters "may be due to intercourse or 'admixture' at periods later "than [the] XIIIth dynasty; they are not present, or in a "much less degree, in the skulls, features, and physiognomies "of individuals of from the IIIrd to the XIIth dynasties." The character of the ancient Egyptian, and of the race to which he belonged, has been vindicated by examination of the skulls of Egyptian mummies. If the pure ancient Egyptian, as found in mummies and represented in paintings upon the tombs, be compared with the negro, we shall find that they are absolutely unlike in every important particular. The negro is prognathous, but the Egyptian is orthognathous; the bony structure of the negro is heavier and stronger than that of the Egyptian; the hair of the negro is crisp and woolly, while that of the Egyptian is smooth and fine. It may be pointed out that the Egyptians originally took trouble to preserve the bodies of the dead because they believed that after a series of terrible combats in the underworld, the soul, triumphant and pure, would once more return to the clay in which it had formerly lived. It was necessary, then, to preserve the body that it might be ready for the return of the soul. It was also necessary to build large and beautiful tombs, in order that the triumphant soul, having revivified its ancient house of clay, might have a fit and proper abode in which to dwell. The pyramid tombs built by the kings of the earlier dynasties, and the vast many-chambered sepulchres hewn in the sides of the Theban hills during the XVIIIth and XIXth dynasties, were not built to gratify the pride of their owners. The belief concerning mummification seems to have been considerably modified at a later period, for the evidence now available indicates that the later Egyptians preserved the material body in order that the spiritual body might spring from it, which result was partly due to the ceremonies performed and the words recited at the tomb by the priests and pious persons.

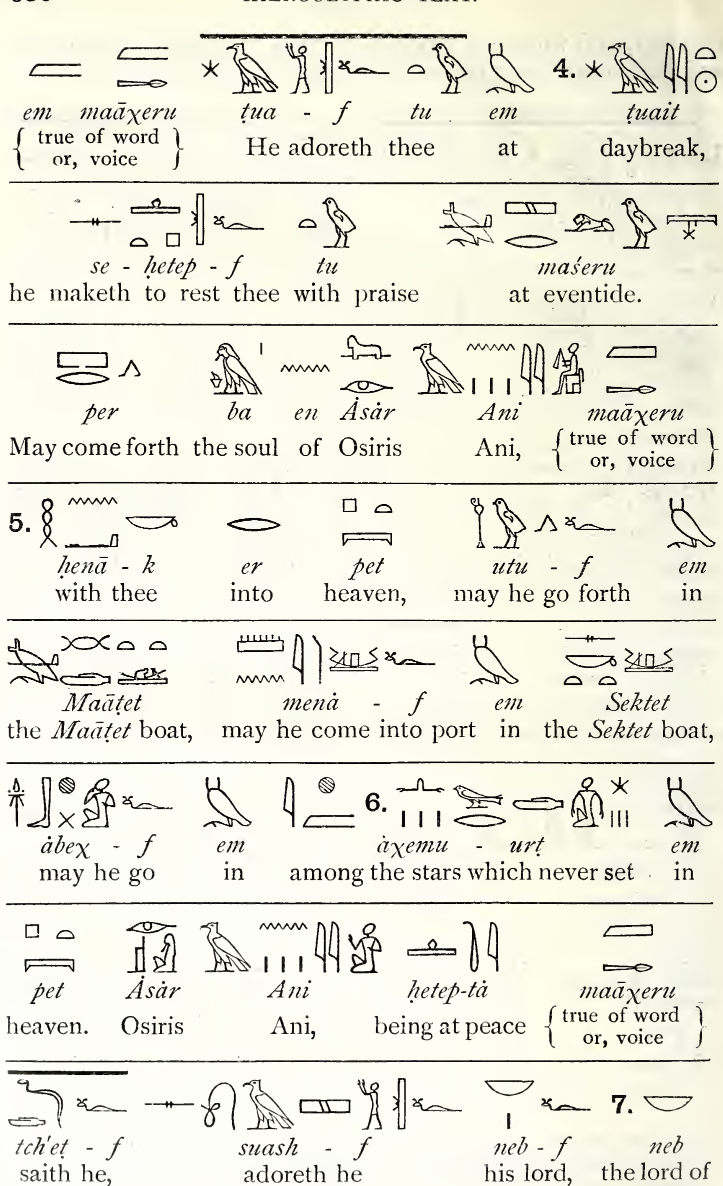
6. Hymn to Rā, from the Papyrus of Ani.

The following is the text of a hymn with interlinear transliteration and translation, which will serve to give the reader an idea of the manner in which the Egyptians strung words

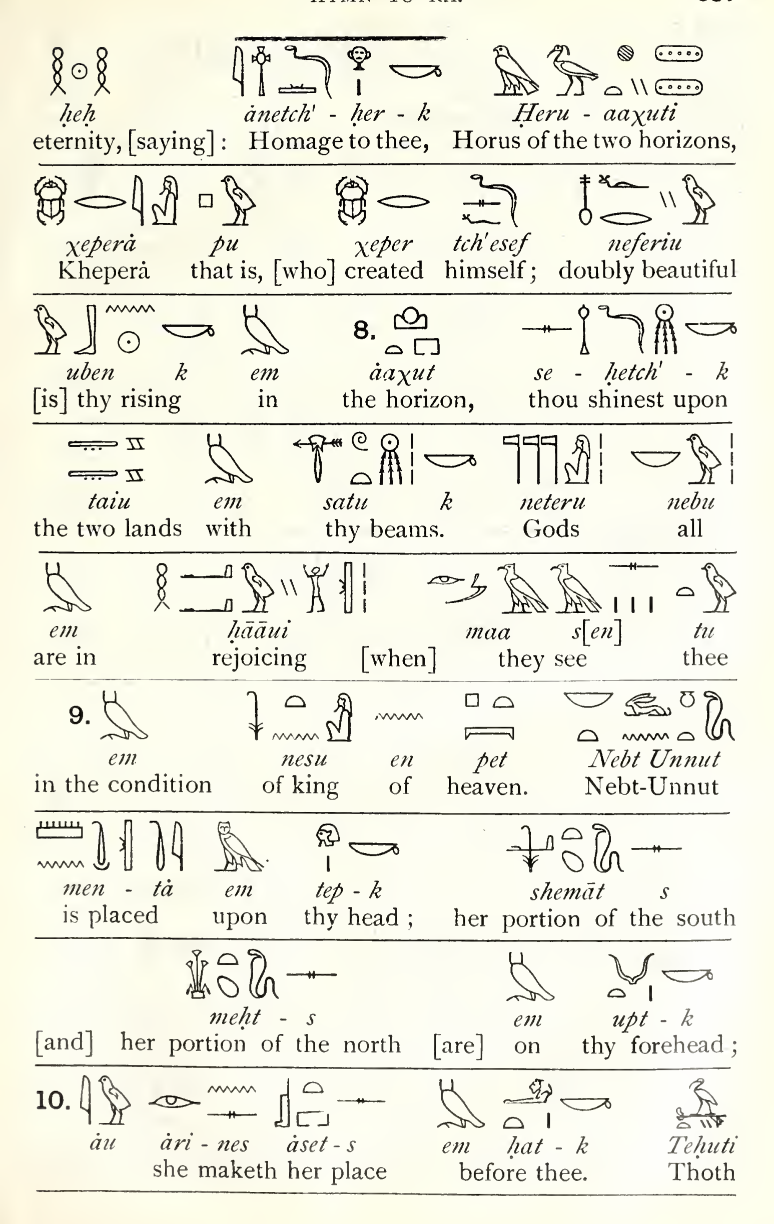
together, and will show how alphabetic and syllabic characters, and determinatives, are used in a religious composition :—

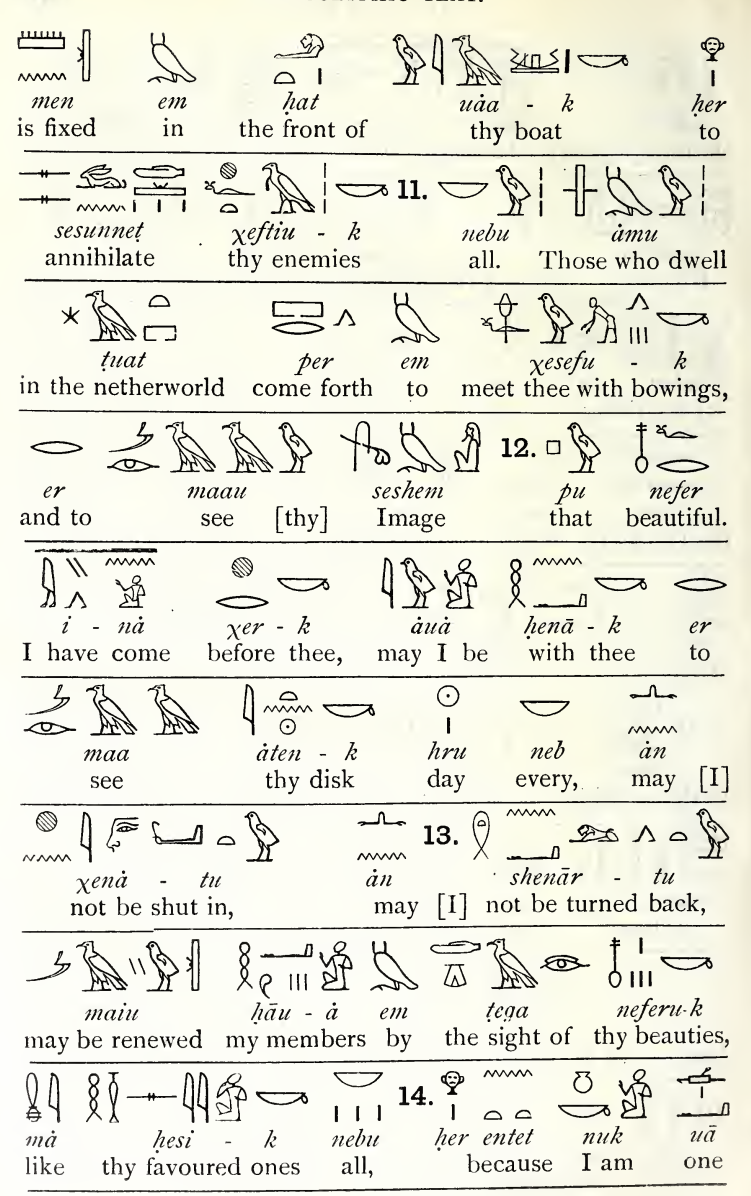


* *Maāt kheru* means "true of word or, voice." Thoth proved that the word of Osiris was true, and that the word of Set, his accuser, was a lie ; therefore Osiris was innocent, or not guilty.



4.
em *maāχeru* { true of word or, voice } *ṭua - f* *tu* *em* *ṭuait*
He adoreth thee at daybreak,
se - ḥetep - f *tu* *maśeru*
he maketh to rest thee with praise at eventide.
per *ba* *en* *Åsår* *Ani* *maāχeru*
May come forth the soul of Osiris Ani, { true of word or, voice }
5.
ḥenā - k *er* *pet* *utu - f* *em*
with thee into heaven, may he go forth in
Maāṭet *menȧ - f* *em* *Sektet*
the *Maāṭet* boat, may he come into port in the *Sektet* boat,
6.
ȧbeχ - f *em* *ȧχemu - urṭ* *em*
may he go in among the stars which never set in
pet *Åsår* *Ani* *ḥetep-tȧ* *maāχeru*
heaven. Osiris Ani, being at peace { true of word or, voice }
7.
tch'eṭ - f *suash - f* *neb - f* *neb*
saith he, adoreth he his lord, the lord of


ḥeḥ
eternity, [saying]:
ȧnetch' - ḥer - k
Homage to thee,
Ḥeru - aaχuti
Horus of the two horizons,
χeperȧ
Kheperȧ
pu
that is, [who]
χeper
created
tch'esef
himself;
neferiu
doubly beautiful
uben k
[is] thy rising
em
in
8. ȧaχut
the horizon,
se - ḥetch' - k
thou shinest upon
taiu
the two lands
em
with
satu k
thy beams.
neteru
Gods
nebu
all
em
are in
ḥāāui
rejoicing
[when]
maa s[en]
they see
tu
thee
9. em
in the condition
nesu
of king
en
of
pet
heaven.
Nebt Unnut
Nebt-Unnut
men - tȧ
is placed
em
upon
tep - k
thy head;
shemāt s
her portion of the south
meḥt - s
[and] her portion of the north
[are]
em
on
upt - k
thy forehead;
10. ȧu
ȧri - nes
ȧset - s
she maketh her place
em
ḥat - k
before thee.
Teḥuti
Thoth



men *em* *ḥat* *uàa - k* *ḥer*
is fixed in the front of thy boat to

sesunneṭ *χeftiu - k* 11. *nebu* *àmu*
annihilate thy enemies all. Those who dwell

ṭuat *per* *em* *χesefu - k*
in the netherworld come forth to meet thee with bowings,

er *maau* *seshem* 12. *pu* *nefer*
and to see [thy] Image that beautiful.

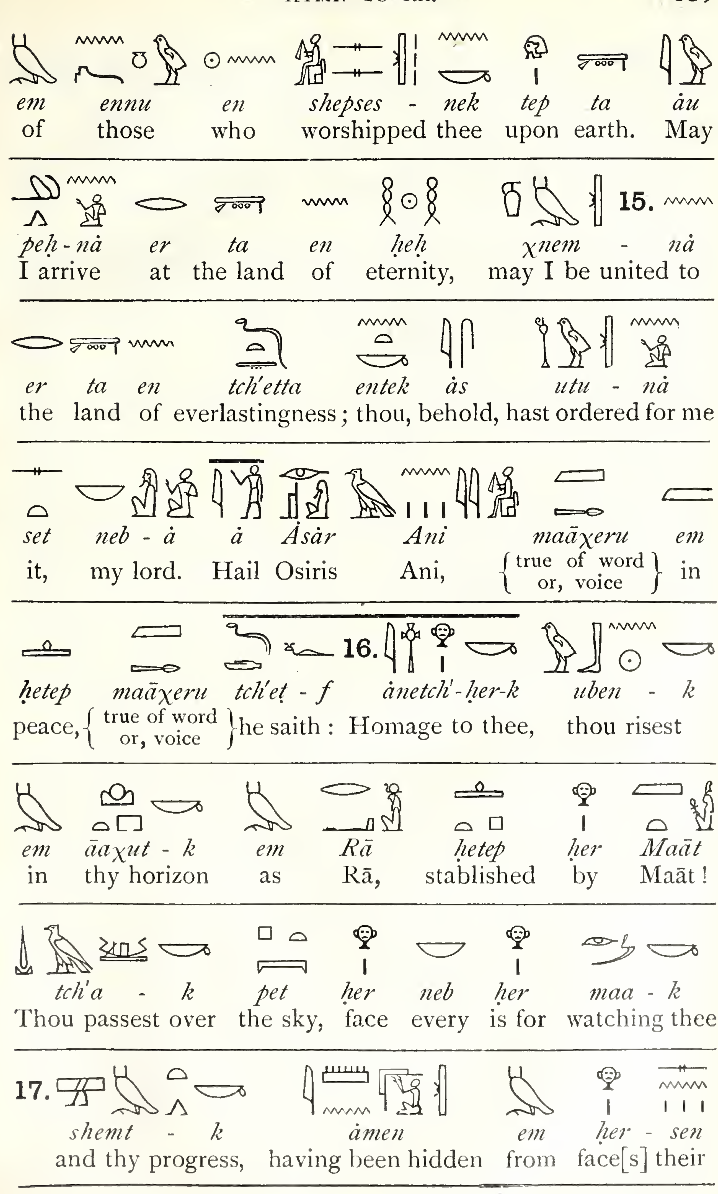
i - nà *χer - k* *àuà* *ḥenā - k* *er*
I have come before thee, may I be with thee to

maa *àten - k* *hru* *neb* *àn*
see thy disk day every, may [I]

χenà - tu *àn* 13. *shenār - tu*
not be shut in, may [I] not be turned back,

maiu *ḥāu - à* *em* *ṭega* *neferu-k*
may be renewed my members by the sight of thy beauties,

mà *ḥesi - k* *nebu* 14. *ḥer entet* *nuk* *uā*
like thy favoured ones all, because I am one



em ennu en shepses - nek tep ta àu
of those who worshipped thee upon earth. May

peḥ - nà er ta en ḥeḥ χnem - nà
I arrive at the land of eternity, may I be united to

er ta en tch'etta entek às utu - nà
the land of everlastingness; thou, behold, hast ordered for me

set neb - à à Àsàr Ani maāχeru em
it, my lord. Hail Osiris Ani, {true of word or, voice} in

ḥetep maāχeru tch'eṭ - f 16. ànetch'-ḥer-k uben - k
peace, {true of word or, voice} he saith: Homage to thee, thou risest

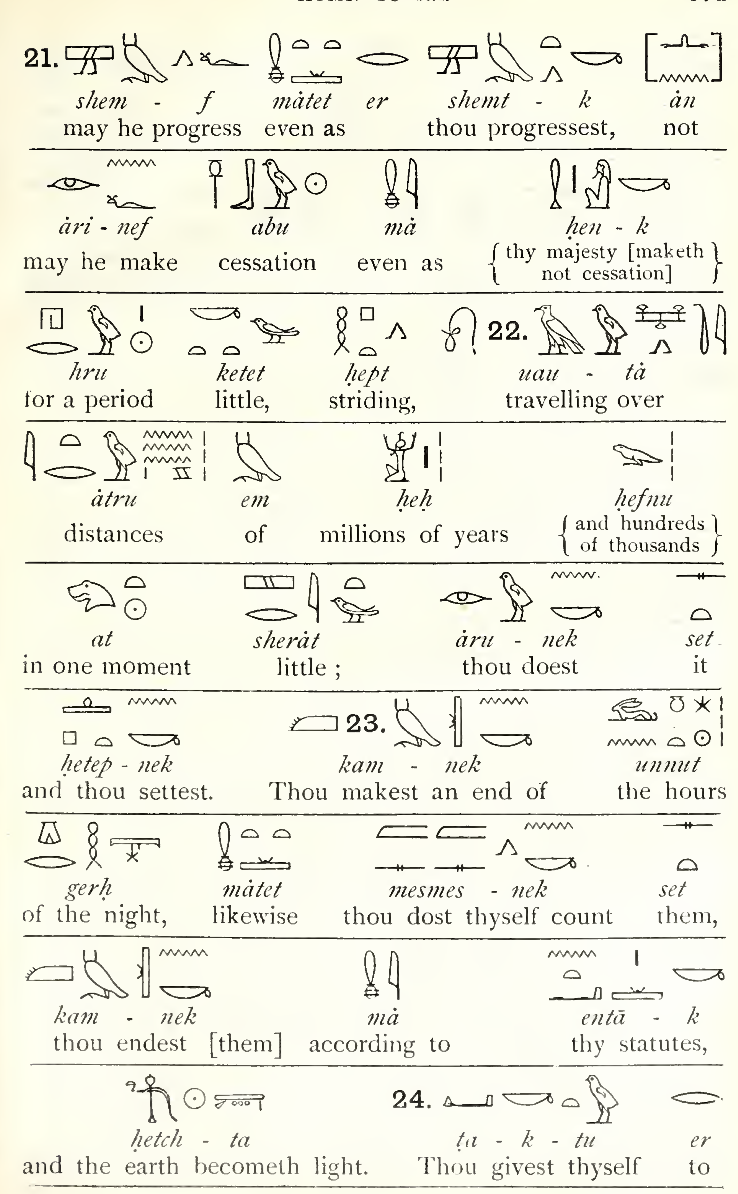
em āaχut - k em Rā ḥetep ḥer Maāt
in thy horizon as Rā, stablished by Maāt!

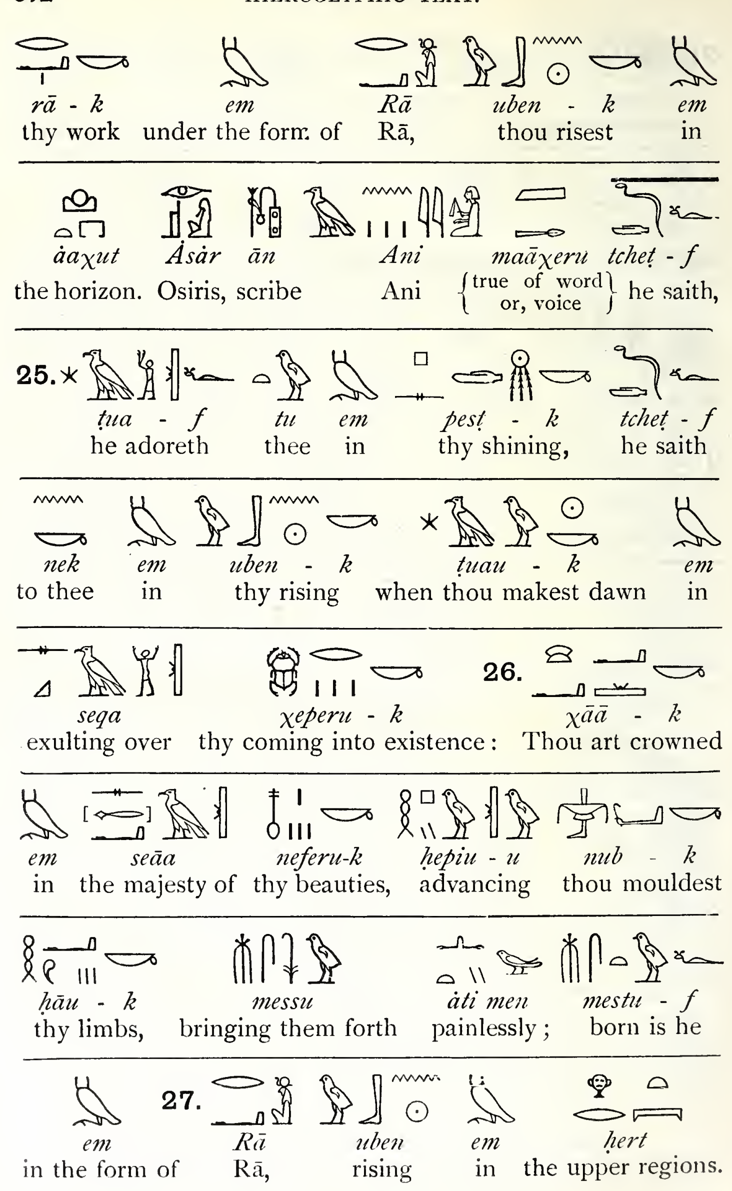
tch'a - k pet ḥer neb ḥer maa - k
Thou passest over the sky, face every is for watching thee

17. shemt - k àmen em ḥer - sen
and thy progress, having been hidden from face[s] their



ṭa - k - tu *ṭuat* *em* *maśeru*
thou givest thyself [at] dawn [and] at eventide
hru 18. *reṭiu* *seqṭeṭ* *χer*
day [every]. Goeth forward in strength the *Sektet* boat having
ḥen - k *satu - k* *em* *ḥeru* *àn*
thy majesty; thy beams shine in [all] faces, not
reχ - set *smu* (?) *àn* *smà*
known are they [thy] rays, not can be told
19. *àmmu - k* *taiu* *nu* *neteru*
thy beams. The lands of the gods
maa - entu *ḥer* *ān* *semt*
must be looked upon, and the colours of the eastern countries
nu *Punt* *er* *sàp - tu* 20. *àmen*
of Punt for to be computed what is hidden.
àri - k *uā - tà* *sem* *un - re - f*
Thou makest alone by thyself [thy] form in its appearance,
χeperu - k *tep* *Nu* *àuf* *er*
thou comest into existence above Nu. He,


21. shem - f mȧtet er shemt - k ȧn
may he progress even as thou progressest, not
ȧri - nef abu mȧ ḥen - k
may he make cessation even as thy majesty [maketh not cessation]
hru ketet ḥept
for a period little, striding,
22. uau - tȧ
travelling over
ȧtru em ḥeḥ ḥefnu
distances of millions of years and hundreds of thousands
at sherȧt ȧru - nek set
in one moment little; thou doest it
ḥetep - nek
and thou settest.
23. kam - nek unnut
Thou makest an end of the hours
gerḥ mȧtet mesmes - nek set
of the night, likewise thou dost thyself count them,
kam - nek mȧ entā - k
thou endest [them] according to thy statutes,
ḥetch - ta
and the earth becometh light.
24. ta - k - tu er
Thou givest thyself to



rā - k | *em* | *Rā* | *uben - k* | *em*
thy work under the form of Rā, thou risest in

àaχut | *Àsàr* | *ān* | *Ani* | *maāχeru* | *tchet - f*
the horizon. Osiris, scribe Ani {true of word / or, voice} he saith,

25. ✱ *tua - f* | *tu* | *em* | *pest - k* | *tchet - f*
he adoreth thee in thy shining, he saith

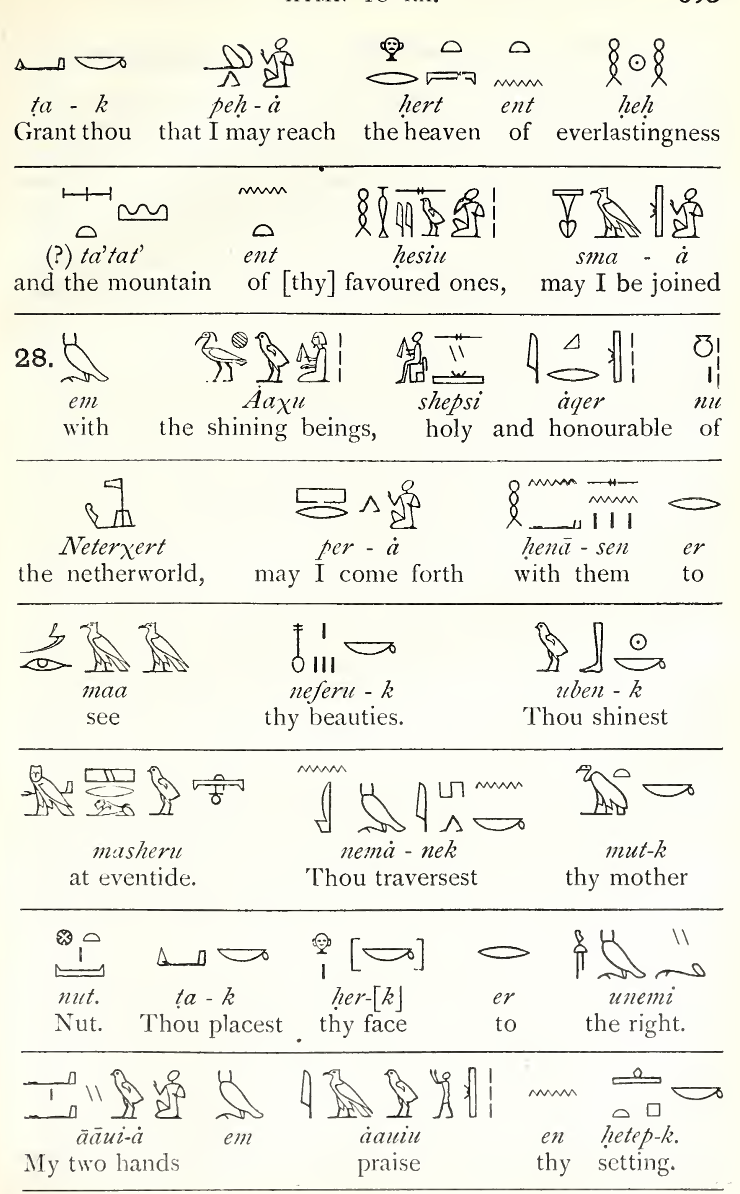
nek | *em* | *uben - k* | *tuau - k* | *em*
to thee in thy rising when thou makest dawn in

seqa | *χeperu - k* | 26. *χāā - k*
exulting over thy coming into existence: Thou art crowned

em | *seāa* | *neferu-k* | *hepiu - u* | *nub - k*
in the majesty of thy beauties, advancing thou mouldest

hāu - k | *messu* | *àti men* | *mestu - f*
thy limbs, bringing them forth painlessly; born is he

em | 27. *Rā* | *uben* | *em* | *hert*
in the form of Rā, rising in the upper regions.



ṭa - k *peḥ - à* *ḥert* *ent* *ḥeḥ*
Grant thou that I may reach the heaven of everlastingness
(?) *ṭa'ṭaṭ'* *ent* *ḥesiu* *sma - à*
and the mountain of [thy] favoured ones, may I be joined
28. *em* *Àaχu* *shepsi* *àqer* *nu*
with the shining beings, holy and honourable of
Neterχert *per - à* *ḥenā - sen* *er*
the netherworld, may I come forth with them to
maa *neferu - k* *uben - k*
see thy beauties. Thou shinest
masheru *nemà - nek* *mut-k*
at eventide. Thou traversest thy mother
nut. *ṭa - k* *ḥer-[k]* *er* *unemi*
Nut. Thou placest thy face to the right.
āāui-à *em* *àauiu* *en* *ḥetep-k.*
My two hands praise thy setting.

7. The Learning of the Ancient Egyptians.

THE ancient Egyptians enjoyed among the nations of antiquity a great reputation for being both religious and learned; we have given in the preceding chapter a brief sketch of some of the most salient features of the Egyptian religion, and it now remains to indicate shortly the principal characteristics of the learning of the people of Egypt in the dynastic period. The custom of embalming the dead taught the Egyptians a certain amount of practical **anatomy,** and tradition asserts that they possessed many works on this subject; it is, however, clear that beyond a knowledge of the skeleton, and a good acquaintance with the various organs which they removed from the body when preparing it for embalming, their information concerning the body was limited. They recognized that the heart was the principal member of the body, and they understood the functions of the main veins and arteries, a fact which has caused some to say that the Egyptians discovered the circulation of the blood. The importance of the heart was known at a very early period, for the object of one of the oldest chapters in the *Book of the Dead* (XXXB) was its restoration to the deceased in the new life which he lived beyond the grave. In the chapter the deceased addresses his heart as "My mother, my mother, O heart of my existence upon earth," and the words, according to the rubric, were to be recited over a green stone scarab set in gold. An ancient tradition indicates that the use of the beetle in connection with it dates from the time of Semti, about 4400 B.C., but there is little doubt that the beliefs which were associated with it were the product of predynastic religious thought. In any case, the prayer given in Chapter XXXB was recited by pious Egyptians in the Ptolemaïc period, and the deceased entered the Judgment Hall of Osiris with a prayer on his lips which was then at least 4,000 years old.

The knowledge of **medicine** possessed by the physicians of the dynastic period was probably of a higher class than their anatomy, and it certainly involved a good practical acquaintance with **botany.** The climatic conditions of Egypt forced them to pay considerable attention to diseases of the eyes and stomach, and there is no doubt that they treated these with considerable success. In the *Book of Medicine*, commonly known as the Ebers Papyrus, a very large number of recipes are given, and an examination of these seems to indicate that

in writing prescriptions the physician added many useless substances to the one or two which he relied upon to effect the cure. He wished apparently to impress upon his patients the great amount of various kinds of knowledge which it was necessary for him to possess in dealing with their ailments, and some medicines contain a score or more of ingredients. As we should expect, decoctions of plants and herbs, vegetable powders and oil, fruit essences, etc., were largely used, and honey appears in many prescriptions. Associated with really useful remedies we find nauseous substances, such as urine, human and animal excreta, oil of snakes, beetles boiled in oil, etc. From the fact that many of these are prescribed as remedies for diseases which are of an entirely opposite character, it is clear that they were introduced into prescriptions merely for the sake of effect. That portion of Egyptian medicine which deals with indigestion, and the ills which result from cold and chill, shows that the Egyptian physician was able to cope successfully with the ordinary complaints of his fellow men, and the good and careful physician earned and obtained, then as now, the gratitude of mankind. Diseases of the eyes were especially studied by him, and we know that by means of certain mineral compounds, unguents, etc., he was able to find effectual remedies for the results of excessive light, the glare of the sun on the water, change of temperature, sand, dust, flies, etc. In Egyptian medicine, as in many other products of their civilization, there is much which belongs to the pre-dynastic period, and to the time when man was intensely ignorant and superstitious, and was obtaining his knowledge by bitter experience; but it must be remembered that the Egyptian was only passing through the stage through which all ancient peoples have passed, and anyone who takes the trouble to compare some of the recipes of the Ebers Papyrus with many in some standard mediæval medicine book will be surprised at the numerous points of resemblance. To what extent modern nations are indebted to the Egyptians in respect of medicine need not concern us here.

Astronomy.—There is no doubt that the Egyptians possessed a considerable amount of knowledge about the heavens, and that this is worthy of the name of astronomy. The first surveys of the stars were made by them for agricultural purposes, that is to say, they depended on the appearance of certain stars for knowing when the inundation of the Nile was coming near, and the best time for sowing

their crops. At a very early period they invented a year which contained 12 months, each of 30 days, and because they found this year too short, they added to it five days, making in all 365. But inasmuch as the true solar year consists of nearly 365¼ days, it is clear that unless one day is intercalated every four years, the whole year must slip back one day every four years, and that it is only a question of time when midsummer day would fall on Christmas Day. Curiously enough, however, many of the Egyptians clung to the year of 365 days, although, as we know, they were fully aware that the year in common use was practically a quarter of a day too short. There may have been many reasons for their action in this respect, but the strongest of all appears to have been the fact that the division of the year into 12 30-day months and the five additional days was a very ancient one, and that they had received from very early times the traditional custom of regarding certain days as lucky, and certain days as unlucky. Had they adopted the year of 365 days, with a day intercalated every four years, they would have been compelled to move their whole system of lucky and unlucky days every four years. Thus conservatism, and probably religious sentiment, caused them to cling to a changing year which only agreed with the true year once in 1,461 years.

The practical difficulty as regards agriculture was overcome in the late period by the priests, who regarded as the true New Year's Day that day on which the star Sothis, *i.e.*, Sirius, the Dog-Star, rose with the sun; the interval of time which elapsed between two appearances of Sothis in this manner was called a Sothic Period, and each of the 1,461 divisions of this period was a Sothic year. A record of the progress of the Sothic Period was kept by the priests, who were able to inform the farmers on what day Sothis would rise with the sun, and which day was to be regarded as the first day of the Inundation, and thus agricultural operations could be regulated without difficulty. An attempt was made by Ptolemy III to reform the calendar by intercalating one day every four years, but it seems not to have been very successful. The division of the year into seasons, each containing four 30-day months, or 120 days, was connected directly with farming works; the first was called "season of the inundation," the second "season of coming forth" (*i.e.*, growing), and the third "season of harvest." The Egyptians made star lists and

charts, in which according to a system of their own they indicated the positions of the stars in the heavens, but they had no astronomical instruments, in the modern sense of the term, to help them. They counted the hours by means of the instrument [hieroglyph].

For **mathematics** of a theoretical or high class the Egyptians had no use, and there is no evidence to show that they ever attempted to work in the higher branches of the science. The Mathematical Papyrus in the British Museum proves that they had a good knowledge of elementary arithmetic, which was sufficient for all their wants in daily life. It enabled them to count farm produce, and to carry on exchanges in kind—for they had no money—and, coupled with an elementary knowledge of land measurement, assisted them to find approximately the areas of irregularly shaped pieces of land. In fact, arithmetic and geometry, to judge by the evidence before us, were only studied of necessity. All their calculations which have come down to us are unnecessarily elaborate, and proclaim unfamiliarity with quick or mental calculation. Their system of counting is clumsy, as will be readily seen. The numbers 1 to 9 are expressed by short perpendicular strokes, ten is ∩, a hundred is [hieroglyph], a thousand is [hieroglyph], ten thousand is [hieroglyph], a hundred thousand is [hieroglyph], a million is [hieroglyph], and ten million is [hieroglyph]; but to express "992,750 large cakes of bread," it is necessary to write [hieroglyphs] [hieroglyphs], *i.e.*, the symbol for 100,000 written nine times, the symbol for 10,000 written nine times, the symbol for 1,000 written twice, the symbol for 100 written seven times, the symbol for 10 written five times. December 28, 1899, would be expressed thus:—year 1899, month 12, day 28, or [hieroglyph] (year) [hieroglyphs] (1000 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 1 + 1 +

1 + 1 + 1 + 1 + 1 + 1 + 1), (hieroglyph) (month) (hieroglyph) (10 + 2) (hieroglyph) (day) (hieroglyph) (10 + 10 + 8).*

Among the learning of the Egyptians must certainly be mentioned **magic**, for it occupied a very prominent place in their minds in all ages, and was probably the forerunner of their religion. The Westcar Papyrus at Berlin proves to us that even so far back as the days of King Cheops there were professional workers of magic who made the public believe that they could kill birds by cutting off their heads, and then, having united their heads to their bodies, could restore them to life, and that they could make a portion of the water in a lake remove itself and set itself upon the other portion, "in a heap," leaving the ground dry on which it had stood, merely by uttering a **word of power.** The Egyptians believed that every object, animate and inanimate, could be made to obey the words of the men who had a thorough knowledge of words and names of power. Moreover, the statues of men could be made to perform work, mere pictures of objects could be made to become actual things, good and evil spirits could be made to occupy, or could be driven out from, living creatures (*i.e.*, men, women, birds, animals, &c.); the dead could be raised, and all the customary limitations of matter, time, and space could be set at naught by the well-instructed magician. It was believed that words of good or evil once uttered under certain conditions were bound to produce an effect, especially if they were coupled with the **name of some god**, or spirit, or demon of power. The **influence of the spoken word could be transferred** by writing to a statue, or to something worn on the body, *e.g.*, a ring, or plaque, or necklace, or papyrus; and wherever these were carried the influence of the name or formula went likewise. Moreover, it was thought possible to transfer to the *figure*, or *statue*, or *picture* of any man, or woman, or animal, or living creature, the soul of the being whom it represented, and from time immemorial the people of Egypt believed that every statue and every figure possessed an **indwelling spirit.** By burning a picture or a statue of a person great injury might be done to him,

* An interesting set of calculations, quite different from those found in the Rhind Papyrus, have been worked out and published by Monsieur G. Daressy in the *Recueil*, tom. xxviii, Paris, 1906; they belong to the period of the XIIth dynasty.

especially if the burning were accompanied by the recital of a curse or ban; and this belief is the cause of the widespread use of **magical figures made of wax or papyrus.** To do harm to a man, the magician first made a model of him in wax, and wrote his name upon it; if he wished to cause him pains, he held the figure over hot ashes, and as it slowly melted he made gashes in it, or stuck pointed wires into the parts of it where he wished the pains to come, and recited the name of the person who was represented by the figure. This was the method of procedure when it was sought to produce a painful and lingering death, but when a swift death was required, the wax figure was thrown into a bright, clear fire, and was consumed as quickly as possible. On the other hand, figures made of wax and other substances might be made to minister to the wants of man, as in the case of *ushabtiu* figures. Numbers of these were buried in tombs, so that when the deceased spoke the words of power which are found in the VIth Chapter of the *Book of the Dead*, they might spring into full-grown men or women and perform the agricultural labours at which the deceased would have had to toil had they not been there to work on his behalf. Wax figures of men and animals were also made to serve as receptacles for evil spirits which were expelled from men.

The religious books of Egypt are filled with allusions to **magical words and ceremonies**, and the writers seemed not to hesitate about repeating any legend, however impossible it may have seemed to them. Thus Isis by her magic caused Rā to be poisoned, and only consented to cure him when he revealed to her his secret name. When Horus was stung by a scorpion, and Isis found him lying dead, her sister Nephthys cried out to Thoth, who stopped the Boat of the Sun in which he was travelling, and came down to listen to what she had to say. It was Isis who raised Osiris to life by her words of power, and then conceived a son by him, and she also recited the formulæ which were so important for the reconstitution of his body. These formulæ were not invented by her, but were taught to her by Thoth, the intelligence of the gods, who spake the word which resulted in the creation of the world, and they were supposed to have, in consequence, divine authority. The "gods," as well as men, were obedient to such words, and any magical composition or formula which could in any way be connected with Isis was supposed to possess special efficacy. It will be understood readily that in the days when **diseases**

were supposed to be caused by evil spirits, and when the belief in demoniacal possession was universal, words of magical power were as important as medicine for the sick and suffering, and that charms, and spells, and incantations, and exorcisms, were considered to be as potent as drugs. The anthropomorphic conception of the gods, which was common throughout Egypt, caused men to think that the same calamities befell the denizens of heaven as the inhabitants of earth, and they believed that the gods relied upon magic for protection against accidents, sickness, and death. Legends of the troubles which came upon the gods were current, and the magician professed to know how they acted and what they said upon those occasions, believing that a repetition of the divine acts and words would be followed by the same results. Hence on certain occasions he assumed the characteristic dress of one god or another, and proceeded to declare that he was himself that god, and to give his orders to the spirit or spirits whom he wished to rule. The formulæ which were recited by him consisted for the most part of a string of names of demons, or, at all events, of supernatural beings, for it was a commonplace of magic that if only the **secret name of a god or demon** were known it was easy to procure his help and obedience. To be able to name a sickness or disease, or the cause of it, was synonymous with curing it, even though the magician might not be quite sure which it was among a list which he recited.

It is, however, in connection with **the dead** that the importance of magic to the Egyptians becomes apparent, for, although they believed that they would obtain resurrection and immortality through Osiris, they lost no opportunity of making certain their hope so far as was possible by their own exertions. Every process of mummification and bandaging was safeguarded by spells and charms; the mummy bandages were inscribed with prayers, etc., figures of the gods and amulets were laid on various parts of the body, or rolled up between the bandages; the intestines, which were preserved separately, were placed in jars with magical inscriptions upon them, and a scarab was laid on the breast to take the place of the heart, which had been removed. On the coffin were painted figures of gods, and prayers full of allusions to incidents connected with the **resurrection of Osiris**; the sepulchral stele was inscribed with prayers for offerings, which could only be supplied by supernatural means, and every act relating to the deposit of the body in the tomb was connected with

magical beliefs and ceremonies. The **Book of the Dead** supplied the deceased with prayers and magical formulæ, and the names of the various supernatural beings whom he would meet on his way to the kingdom of Osiris, and indicated to him what to do and what to say in order to procure for himself the means of subsistence in the other world. All the funeral ceremonies of the dynastic period were copies, more or less exact, of those which were performed in pre-dynastic days for Osiris, and the Egyptian felt certain that if only he could ensure being said for him the words which were said for Osiris, and have performed for him the ceremonies which were celebrated for Osiris, he must necessarily rise again, as did Osiris, and enjoy immortality, as did Osiris. The Egyptians never entirely gave up their beliefs in magic, and long after they became Christians, they placed their confidence in sacred names, words of power, amulets, etc. The Greek magical papyri which were written in the early centuries of the Christian era contain many borrowings from the older Egyptian books of magic, which were very numerous. The ancient inhabitants of Babylonia were great believers in magic, but there is no doubt that Egypt was the home of the "Black Art," and that much of Egyptian magic survived in the writings of mediæval sorcerers.

The **literature** of Egypt. If we deduct from the works of the ancient Egyptians those which relate to religion and magic, what remains is not relatively much, but it is extremely interesting. The **hymns** to the gods contain lofty sentiments, well expressed, and here and there may be noted the awe-struck resignation which is so characteristic of the hymns of many Oriental peoples. A few **love songs** have come down to us, and they show that the Egyptian poet was as much a master of his craft as the writer of the Song of Solomon. No attempt is made to make rhymes, but very good effect is produced by a sort of rhythmic prose and parallelism of members. The **Song of the Harper**, which was written in the reign of Antuf, recalls many of the sentiments expressed in the Book of Ecclesiastes; it points out that all things are transitory, that generations come and go, and are as if they had never been, that the sun rises and sets, that men beget and women conceive, and the writer exhorts the listener to make merry, to make love, to cast away all cares, and to enjoy happiness until the day shall come when we have to set out for the land "which loveth silence." Such songs were sung

probably in exactly the same manner in which the Egyptian sings songs to-day, but **music** in the modern sense of the term was unknown. Singers were accompanied by **reeds and flutes** of various kinds, generally played by men, whilst women **beat tambourines or rattled sistra,** the noise of which served the double purpose of driving away evil spirits and of making a pleasant sound. **Harps,** both large and small, were well known and often used; the number of strings varied between five and ten. Speaking generally, the Egyptians were acquainted with all the musical instruments which are mentioned in the last Psalm (cl.). The famous **Song of Pentaurt,** the Poet Laureate of the day, deals with the victory of Rameses II over the Kheta, but it is so long that it must only have been sung on ceremonial occasions.

History in the modern sense of the word was not written by the Egyptians. They kept records of the order of succession of kings, with the lengths of their reigns, and it is probable that they possessed "Chronicles"; but so far as we know now no connected history of the country was ever written except that of Manetho, who was alive in the reign of Ptolemy II, and compiled his work by the order of this king. Many kings, *e.g.*, Thothmes III, Rameses II, Seti II, took care to have the annals of their reign written. **Biography** is represented by numerous funeral stelæ, and inscriptions on the walls of tombs, which supply a considerable amount of valuable historical matter. The Egyptians possessed a useful group of compositions or **moral aphorisms** and precepts, which inculcated the great importance of a religious and moral life, and contained a number of shrewd observations, sometimes expressed in long, high-sounding phrases, and at other times in a few short, pithy words. Many of the precepts in the works attributed to Kaqemna and Ptaḥ-ḥetep may for beauty of sentiment and sound common sense be compared with the sayings in the Wisdom of Solomon, the Book of Proverbs, and Ecclesiasticus.

Travels are represented by the **Story of Sanehat** (2500 B.C.); by the narrative of the Egyptian who visited Palestine and gives an account of his travels in a letter to a friend; by the record of the **journey of Unu-Åmen,** who went to Palestine to buy cedarwood to make a new barge for Amen, the great god of Thebes, about 1100 B.C.; and by the story of the **shipwrecked traveller** who was cast upon a sort of enchanted island, wherein dwells a monster serpent. Under **fiction** and fairy stories must be mentioned the **Tale of the Two**

Brothers, which consists of two tales that were originally separate works; the **Story of the Predestined Prince**; and the **Story of the Peasant** whose donkey was stolen, and who appealed to the local magistrate for its restoration. This official was so much interested and charmed by the learning of the poor man that he caused the hearing of the case to be continued through many days in order that he might enjoy the learning and skill which the appellant displayed in conducting his case. Fiction combined with magic is well illustrated by the stories narrated in the Westcar Papyrus, to which reference has already been made, and the **Dialogue between a man and his soul** proves that the most learned of the Egyptians sometimes indulged in philosophical contemplation.

The Egyptians were undoubtedly law-abiding people, and yet we have up to the present found no copy of the code of **laws** under which Egypt was administered and ruled. Under the early dynasties justice was probably dispensed in the rough-and-ready way which is so common in the villages all over the East, *i.e.*, the head of each village heard the cases that were brought before him, and meted out summary punishment for the offenders. The more difficult cases were tried before a number of priests, who appear to have received a salary for sitting as judges daily in the courts The two most famous law cases of which any record has come down to us are: (1) The trial of the thieves who plundered the Royal tombs at Thebes, and (2) the trial of the officials and others who entered into a conspiracy to kill Rameses III. On the first the court at Thebes sat for several days, and the evidence was abundant; the sites of the robberies were visited, but the higher officials made such conflicting statements that it is impossible to see who was the real leader of the gang of tomb robbers. It seems as if the Governor of Thebes and the head-keeper of the necropolis were both implicated, and that they quarrelled and made misleading statements intentionally. From this case we learn that torture was sometimes employed to make unwilling witnesses speak. The second case was, it seems, a *harîm* conspiracy, which was not, however, tried in the ordinary way, but by a special group of judges, selected no doubt by the king; the king refused to investigate the matter, probably because he did not wish to condemn to death men who had been his trusted friends and officials. The guilt of many of those who were condemned was only too clear; they were condemned to death, but were permitted to die by suicide.

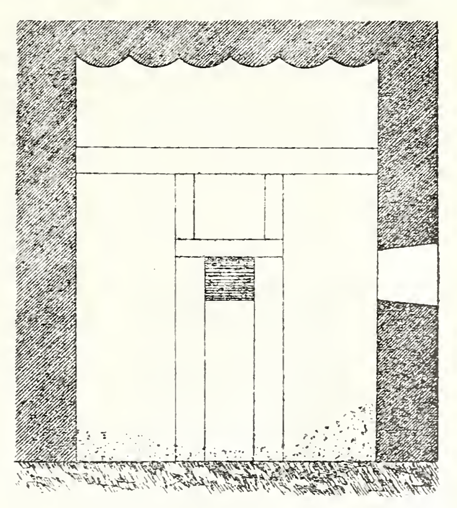
It is quite clear from the general testimony of the inscriptions that the fundamental laws of Egypt were few, and it is equally clear that they were very old; mutilation, *i.e.*, the cutting off of a hand, the slitting or cutting out of the tongue, cutting off the nose and ears, etc., was certainly the punishment for murder, theft, slander, and even for lying under certain circumstances. Adultery and treason were punished with death.

A good idea of the sins and crimes which were held in abomination by the ancient Egyptians can be obtained from the CXXVth Chapter of the *Book of the Dead*. In this we see that 42 sins are enumerated, and that the deceased declares to 42 gods that he has not committed them. These sins include murder, manslaughter, adultery, and acts against chastity, theft, arson, sacrilege, contempt of God, treason against the king, anger, cruelty, deceit, hastiness of speech, envy, hatred, etc., and they show that, under the XVIIIth dynasty at least, the conception of what a moral and religious life should be was a very high one. The Egyptian idea of law and right and truth was a straight line which was called *maāt*, and any deviation from that line was sin; the type of physical law was the path of the sun which was supposed to have been laid down by Thoth and his female counterpart Maāt, and *maāt, i.e.*, right and moral integrity, was the ideal at which all good and pious Egyptians aimed.

8. Architecture.

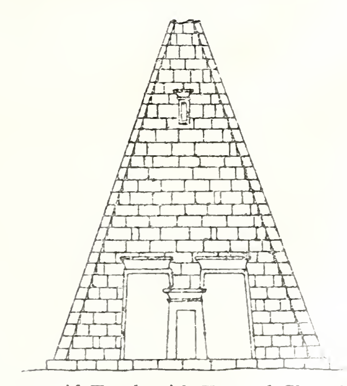
We have now briefly considered the learning of the Egyptians, *i.e.*, the product of their minds, and we must now refer to the skill and cunning which they displayed in their handicrafts, *i.e.*, the product of their hands. In **architecture** the Egyptians excelled all the other Oriental nations of antiquity of which remains have come down to us. They devoted their best energies to the building of **tombs** and **temples,** the former as the everlasting abodes of the deified ancestors whom they worshipped, and the latter as the houses wherein their gods dwelt. In pre-dynastic times tombs were of a very simple character, and they consisted of holes dug in the sand; at a later period such holes were lined with bricks or slabs of stone, and eventually little houses were raised over such graves. When the relatives and friends of the dead began to visit the tombs the grave-house was made larger, and accommodation was provided for those who wished to make offerings to the dead. The pit for the body was sunk deeper and deeper as

time went on, and when men had learned how to mummify the dead, a special room, or **mummy chamber**, came into use, and stone sarcophagi for the mummies of the dead were placed inside it. By this time masons had become skilled in working stone, and continuous employment resulted in increased expert knowledge.



Entrance to an Early Tomb.
(From *Prisse d'Avennes.*)

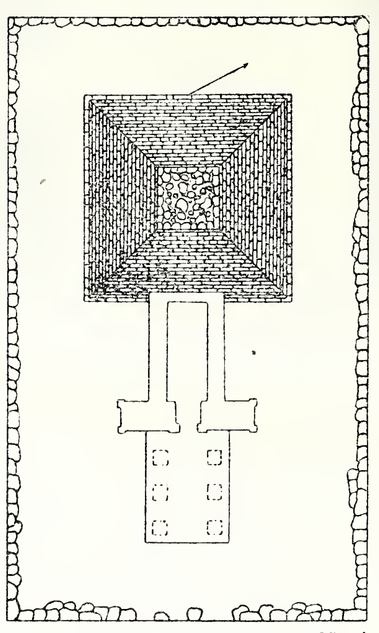
The oldest form of tomb building is called **maṣṭabah** by the Arabs, because it resembles in shape a bench. The top is flat, the sides slope outwards slightly; the outsides of the walls are solidly built of well-cut stones, but the cores of the walls are made of masons' rubbish. The maṣṭabah is entered on the east side, and the door is sometimes ornamented with square pillars. Inside are a stele recording the name and titles of the deceased, an altar for the offerings of relatives and friends, and often a small chamber intended to hold the statue of the deceased. This is called the **sardâb**, and it was connected by an opening with the tomb, so that the *ka*, or double of the



Pyramid Tomb with Funeral Chapel.
(From *Prisse d'Avennes.*)

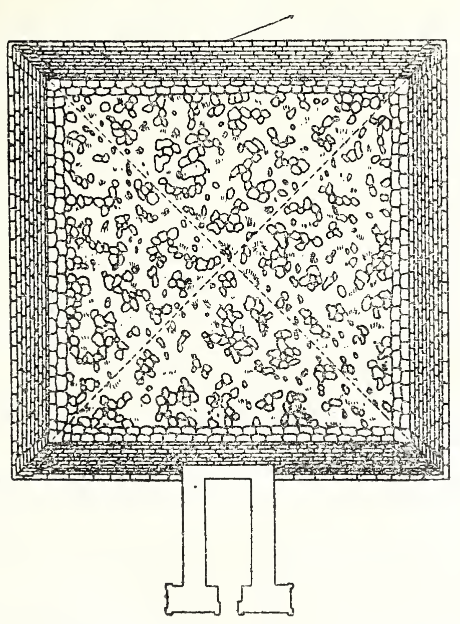
deceased, might hear the prayers and enjoy the smell of the incense and offerings. The **pit leading to the mummy chamber** was square, and large enough to allow the mummy and its sarcophagus to be passed down; maṣṭabahs were built in rows with narrow passages between them, and thus a cemetery of the IVth or Vth dynasty resembled a little town of detached stone houses of the same shape built in rows.

Contemporary with the maṣṭabah was the **pyramid** tomb, the largest examples of which are to be seen at Gîzah. The mummy chamber was built either below the centre of the pyramid, or in it, and it was approached by a slanting corridor, which was provided with doors arranged at intervals. Each pyramid was provided with a chapel in which funeral services were performed by a staff of priests. So long as the dead had to be buried in stony plains, maṣṭabahs and pyramids were the classes of tomb most suitable for kings and noblemen, but when, on account of the great value of the land, the dead had to be buried in the hills, a modification of the plan of the tombs of the wealthy became necessary. Between 3500 and 2500 B.C. pyramidal tombs were built of brick, and were from 15 to 20 feet high; they were often surrounded by a wall. On the east side was a small porch, which took the place of the chapel of the larger buildings, and here offerings were made and prayers said on behalf of the dead. The next stage in tomb building was to hew the chapel and shaft leading to the mummy chamber, and the mummy chamber itself, out of the solid rock, only the shaft was hewn horizontally instead of



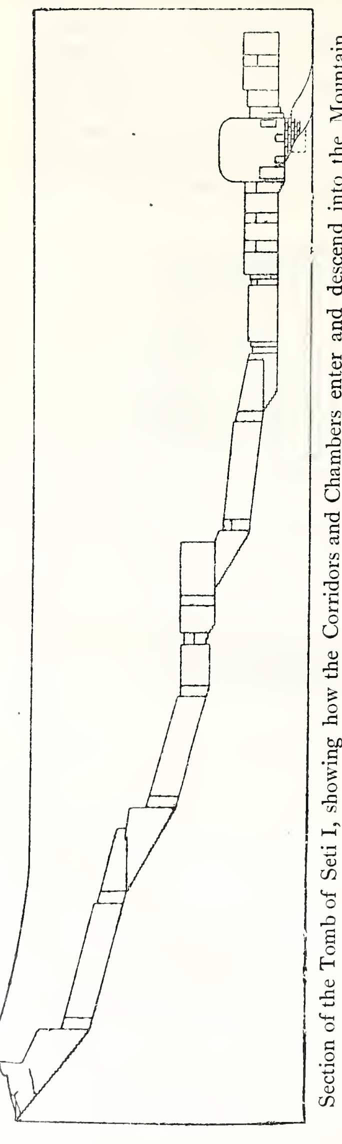
Plan of a Pyramid Tomb, with Vestibule, or Funeral Chapel, and corridor, the whole enclosed by a wall. (From *Prisse d'Avennes.*)

perpendicularly. In the **chapel or hall** of such tombs a niche was hollowed out for the statue of the deceased; this niche is the equivalent of the *sardâb* of the tombs of the Ancient Empire. Under the XVIIIth and XIXth dynasties the kings who ruled Egypt from Thebes built magnificent tombs, with long corridors and several chambers, in the hills on the western bank of the Nile. A religious motive seems to have influenced the architect in making his plans, and the tombs of the great



Pyramid Tomb with Funeral Chapel. The Core of the Pyramid is built of Rubble. (From *Prisse d'Avennes.*)

became veritable copies of the Underworld as it was conceived in the minds of the theologians of the day. All the main features of the ancient tomb were carefully preserved, only the arrangement was different, and this difference showed itself most markedly in connection with the chapel. Instead of building the funerary chapels at the entrance to the tombs in the Valley of the Tombs of the Kings, some kings built them near the river, where they were easy of access, and where they could be built in a style of magnificence and size worthy of



Section of the Tomb of Seti I, showing how the Corridors and Chambers enter and descend into the Mountain.
(From *Prisse d'Avennes.*)

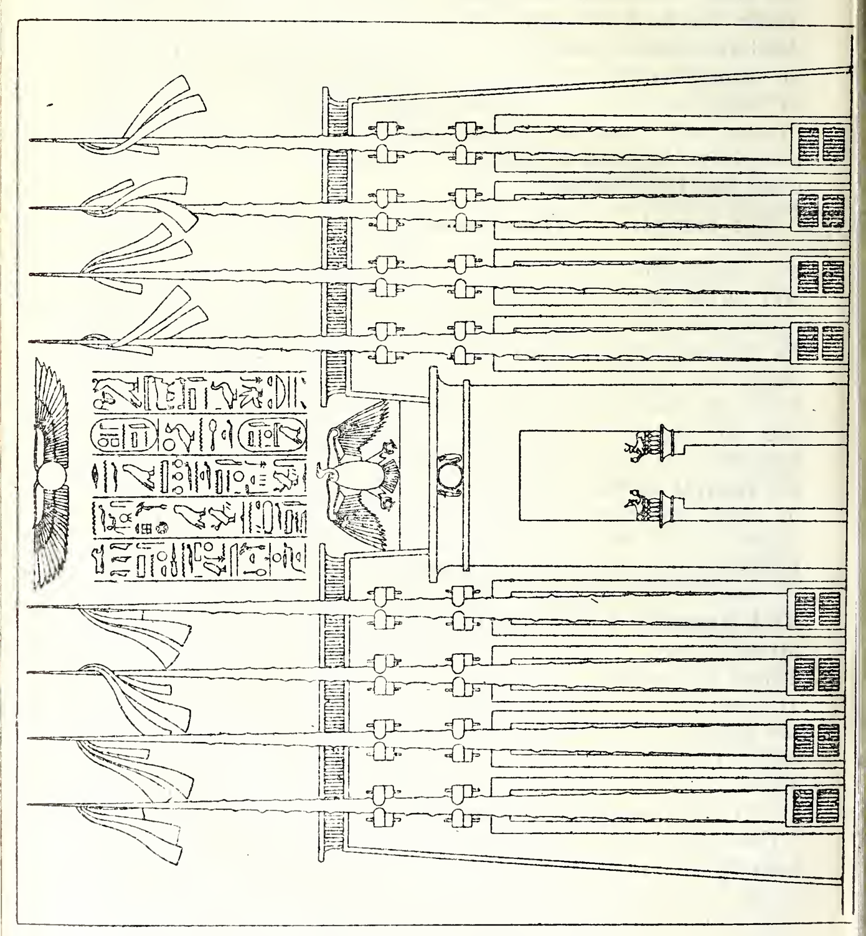
their builders. All royal tombs appear to have been built according to plans approved by those for whom they were made, and it results as a matter of course that hardly any two are alike in detail or style of ornamentation.

After the XXVIth dynasty tomb architecture declined, and kings and nobles had to be content with relatively small and ill-built tombs; all the essential features were, however, preserved, and the dead were carefully hidden, and the supply of offerings at regular intervals was duly provided for. When the Egyptians became Christians they built chapels above the tombs of their saints, and many of their ancient customs were perpetuated; when they became Muḥammadans they did the same things, and the numerous small buildings over the graves of pious men which are seen throughout the length and breadth of the land prove that the old ideas of the soul visiting the tomb are not yet extinct. At Gabal Barkal, Nûri, and Meroë in the Sûdân are numerous pyramids, most of which were built after 700 B.C. under the influence of the priests of Âmen, who took refuge in Nubia after they were driven out of Thebes. These pyramids are different

from the great pyramids of Egypt, for the stones of the sides are much smaller, and the cores are made of loose stones and sand which have been thrown inside the walls in a dry state. In some which were opened by the writer for the Sirdar, Sir F. R. Wingate, K.C.B., in 1902, the bodies of the dead were found in rough-hewn chambers beneath the pyramids; no attempt had been made to mummify the bodies, which seem to have been laid to rest in a kind of shirt. Under one pyramid was found an earthenware jar of human ashes, which prove that the body of the person for whom the pyramid was made had been burned.

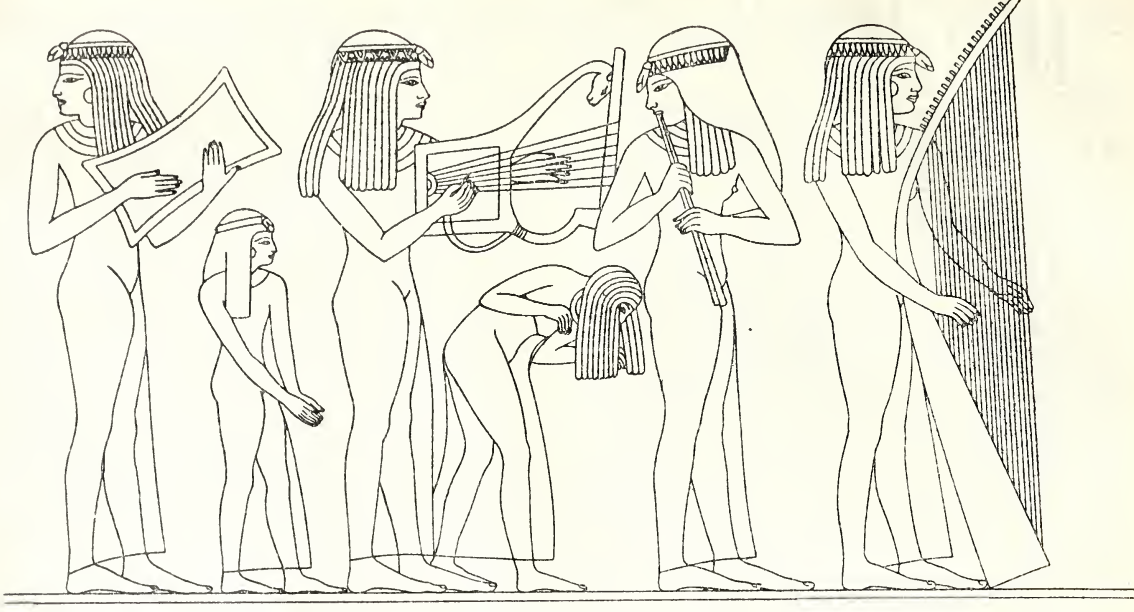
The **temple,** or **God-house** [hieroglyphs], of the primitive Egyptians was probably built of wood, and bricks and stone were not used until a later period. The sites chosen for the dynastic temples were "holy ground" from the earliest historic times; their names were, no doubt, changed often, and different gods were worshipped in them as time went on, but temple after temple was built on the same site, although the reason why it was held to be sacred was forgotten. One of the most interesting temples in Egypt is the **Temple of the Sphinx,** which was discovered by Mariette in 1853; opinions as to its age differ, but it is usual to consider it to be the work of the XIIth dynasty. It is a simple building, and has little in common with the great temples of the XVIIIth dynasty. The most important remains of an **XIth dynasty temple at Thebes** are those of the temple of Menthu-ḥetep Neb-ḥep-Rā, which were excavated at Dêr al-Baḥarî by Professor Naville and Mr. H. R. Hall in the winters of 1903–6. This temple was built about one thousand years before the reign of Queen Ḥatshepsut, the builder of the great temple called Tcheser Tcheseru, *i.e.*, "Holy of Holies," and, in some respects, may have served as the copy for the building which the great Queen's **architect Sen-Mut** set up close by. Under the XIIth dynasty the Thebans founded, or may-be re-founded, the **temple of Ȧmen,** the local god of Thebes, at the place now called Karnak. The building at this period was relatively a small one, and in the centre of it was a shrine, or perhaps small chamber, which held a statue of the god. In later times, when the power of the Theban princes increased, the temple was enlarged, new courts with pylons were added by successive kings, more land was enclosed about the temple, large numbers of massive columns were set up in the courts, and larger and

finer obelisks were introduced. Less important temples during the XVIIIth and XIXth dynasties consisted of a rectangular building, with a colonnade running round all four sides, and



Front of a Temple showing Poles with Flags flying from them. (From *Prisse d'Avennes.*)

a parapet. At the east end was a flight of steps leading to the entrance of the building, and at the other end was the

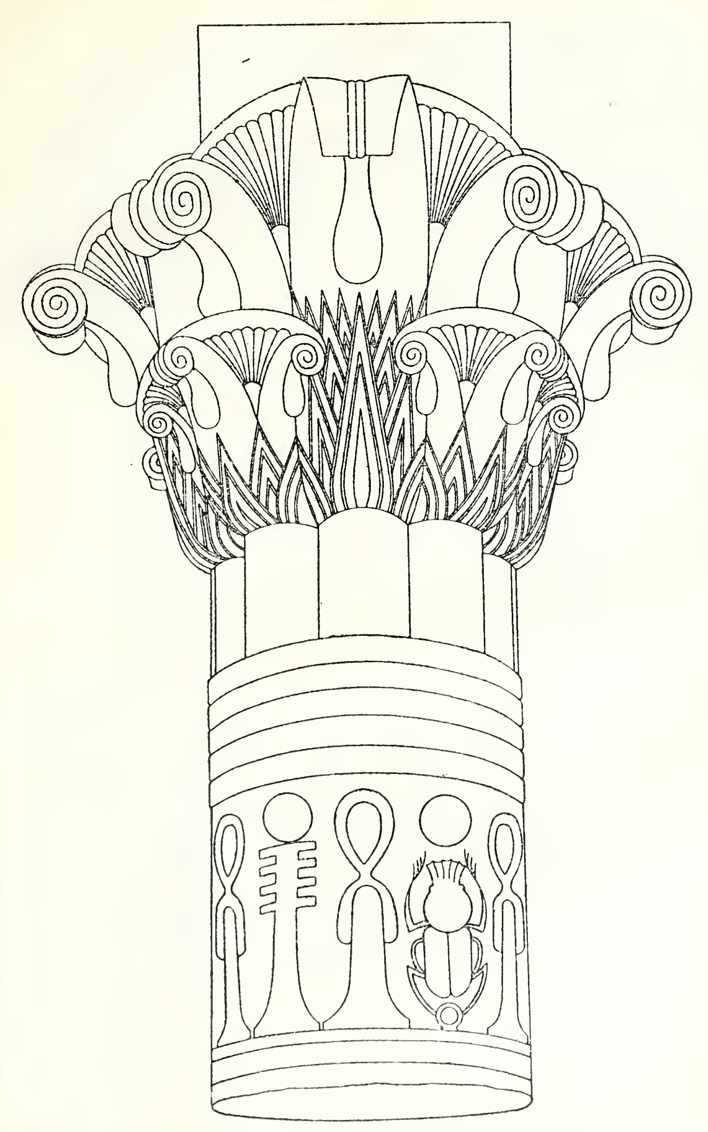


A Group of Female Musicians
(From *Prisse d'Avennes.*)

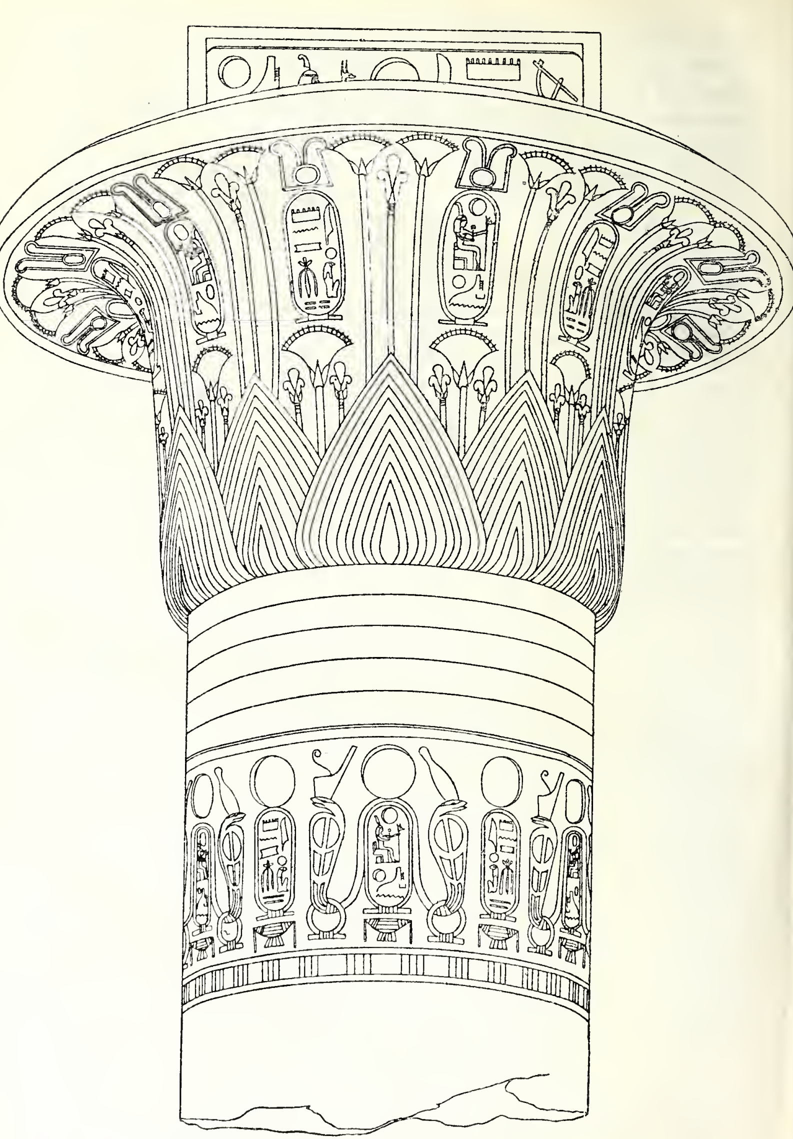
shrine containing the statue or emblem of the god. It is uncertain how far such temples were intended for public use.

The temple buildings usually consisted of—(1) **Pylons**; (2) an **open courtyard**; (3) a **hypostyle hall**; (4) a **shrine**, set up in the sanctuary, which could be shut off from all the other parts of the temple. A broad path, or **dromos**, brought the worshipper to the first pylon; on each side of it was a row of man-headed or animal-headed **sphinxes**, which no doubt represented the guardian spirits of the place. These are to be compared with the colossal man-headed bulls and lions which flanked the doorways of Assyrian palaces; the inscriptions state definitely that they "protected the footsteps" of the king who made them. The **pylon** consisted of a massive doorway and two towers: these in times of festival were decorated with painted poles, from which floated coloured flags or streamers. A colossal statue of the king and an obelisk stood at each side of the doorway, and sometimes several statues of the king were arranged, at intervals, along the front walls of the pylon. The pylon, with its statues and obelisks, is probably the most characteristic feature of Egyptian temples. On three sides of the open court was a **colonnade**, which was used as a kind of bâzâr by those who sold to the public things required for the worship of the gods. The **hypostyle hall** was entered through another pylon; here the offerings were brought, and here the portion of the temple to which the public had free access came to an end. Beyond lay the sanctuary with the **shrine of the god** in it, and round about were several small chambers in which the dresses of the gods and temple property of a portable character were kept. The **ritual of Ȧmen** was very elaborate, and the ceremonies performed in connection with it were exceedingly numerous, so numerous in fact that if the king assisted at them daily he would have no time to administer the affairs of his country. The shrine of the god was kept closed, and to be allowed to see the face of the deity was regarded as the greatest privilege which the worshipper could enjoy. Every large temple had a **lake** within its precincts; in it the worshippers performed their ablutions, and on its waters the processions of sacred boats were held.

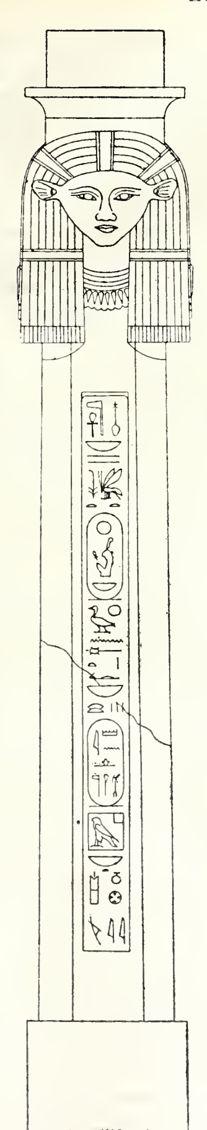
A great many **religious festivals** were observed by the Egyptians, and it is probable that in the course of the year numerous services were held to which the public were admitted for praise and prayer. The details of temple



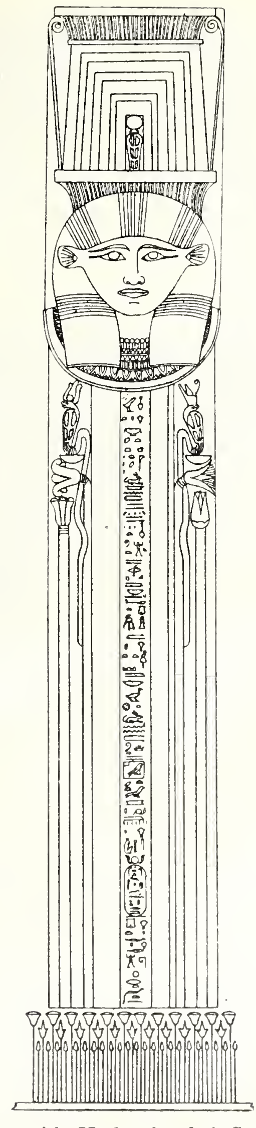
Upper Part of a Pillar with ornate Lotus Capital.
(From *Prisse d'Avennes.*)



Upper Part of a Pillar of Rameses II, with Palm Capital and Square Abacus.
(From *Prisse d'Avennes.*)

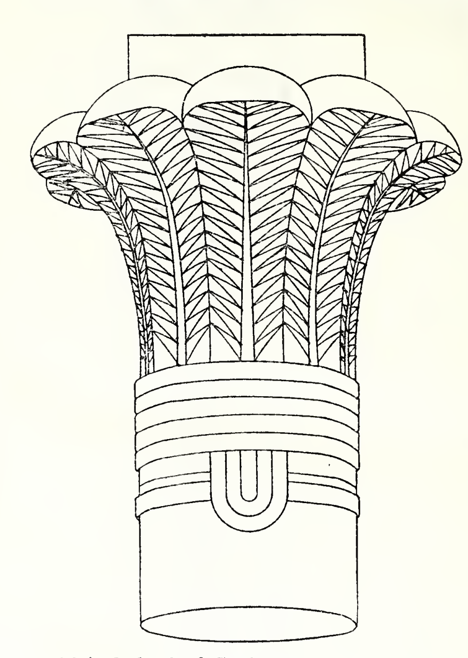


Pillar with Hathor-headed Capital, set up by Ȧmen-ḥetep III. (From *Prisse d'Avennes.*)



Pillar with Hathor-headed Capital, of the Ptolemaïc Period. (From *Prisse d'Avennes.*)

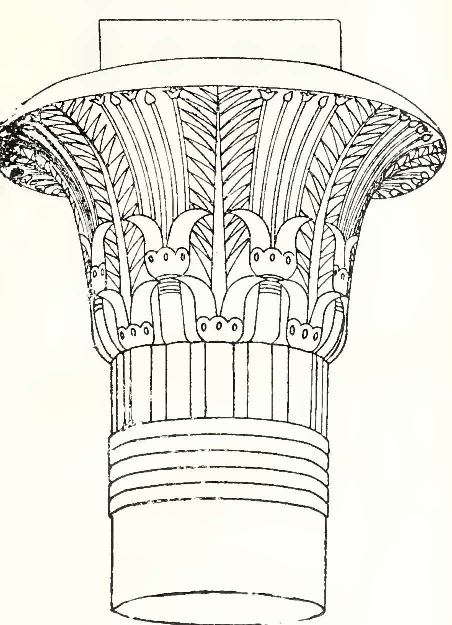
construction varied as much as those of tombs, a fact which the traveller can easily verify for himself. Then, as now, the plans of religious edifices were modified according to circumstances and the means at the disposal of the builders. The temples built of sandstone in the Ptolemaïc period form a class by themselves, but all the essential parts of the Pharaonic temples were preserved; the examples of these which still stand suggest that they lack the stately dignity of the buildings of the olden time. The **rock-hewn temples** of Bêt al-Walî, near Kalâbshah, and Abû Simbel, some 40 miles north of Wâdî Ḥalfah, and Gabal Barkal at the foot of the Fourth Cataract, also form a class by themselves.



Plain Palm-leaf Capital of a Pillar, with Square Abacus.
(From *Prisse d'Avennes.*)

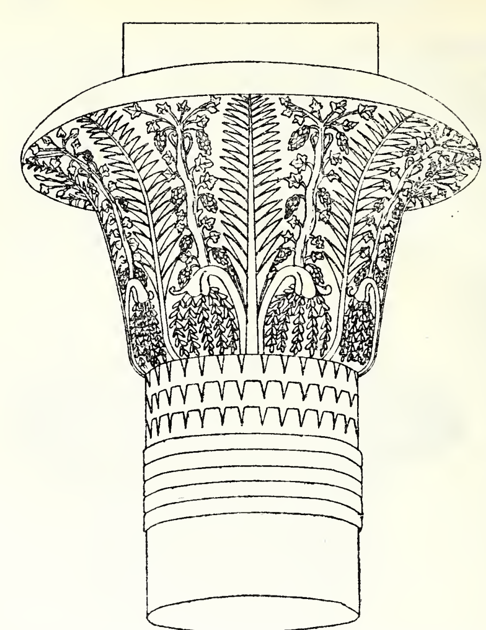
Egyptian temples have in all ages called forth the admiration of beholders, and there is no doubt that those who designed and built them were masters of the art of producing great and solemn effects in the minds of the people. The mere thought of the labour involved in quarrying and hewing the huge blocks of granite, limestone, and sandstone used in their construction, and in dragging them to their destination, is well-nigh overpowering, and forces one to consider what the social state of Egypt could have been at the time they were built. The men who made these mighty buildings were *forced* to do so, and all that the king or state contributed towards the expenses was the food of the workmen. The supply of labour was practically unlimited, there was no public opinion

to control the monarch's desires, neither time nor material represented money, and the taskmasters were active and insistent. The examination of Egyptian buildings by architectural experts has revealed the existence of many faults in construction, and of much bad work, especially in the matter of the foundations; but it is impossible not to wonder why all the work done under such conditions is not bad. Another thing to remember is that no mighty cranes or pulleys, or other machines on a large scale, were used in building either pyramids or temples, and that every appliance in the Egyptians' hands was of the simplest character. The wedge, the lever, the roller, inclined planes made of sand or palm trunks, represented most of their mechanical contrivances; all else was human and animal force. Many writers have declared that the **obelisks** which are still to be seen in Egypt could never have been set up without the aid of complicated and very powerful machinery, but we know that the Egyptians had no such machinery.



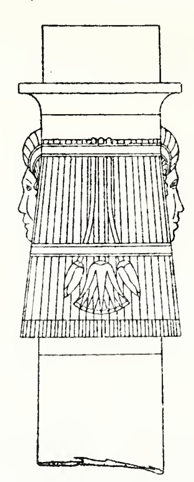
Ornate Palm-leaf Capital of a Pillar, with Square Abacus.
(From *Prisse d'Avennes.*)

Blocks of granite intended for obelisks and monolithic statues were separated from the quarry bed by means of series of wedges driven into slots cut in the stone; a raft of timber was built under each block, and when the inundation came, both raft and block were floated out by a canal from the quarry into the Nile, and thence down the river to their destination. When the rough-hewn block had

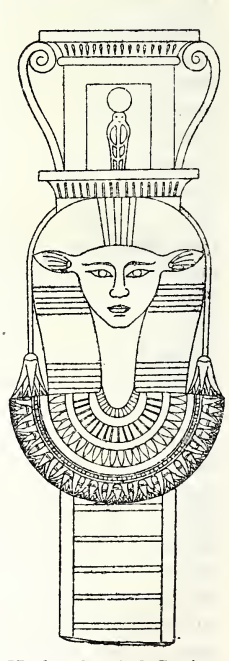


Ornate Palm-leaf Capital of a Pillar, with Square Abacus. (From *Prisse d'Avennes.*)

been placed in the position it was intended to occupy, the cutting, and shaping, and polishing began, the inscriptions being added last of all. Obelisks varied from 60 to 105 feet in height, and weighed from 50 to 250 tons; they illustrate, perhaps, better than anything else the power of work which the fallâḥîn of Egypt have always possessed.

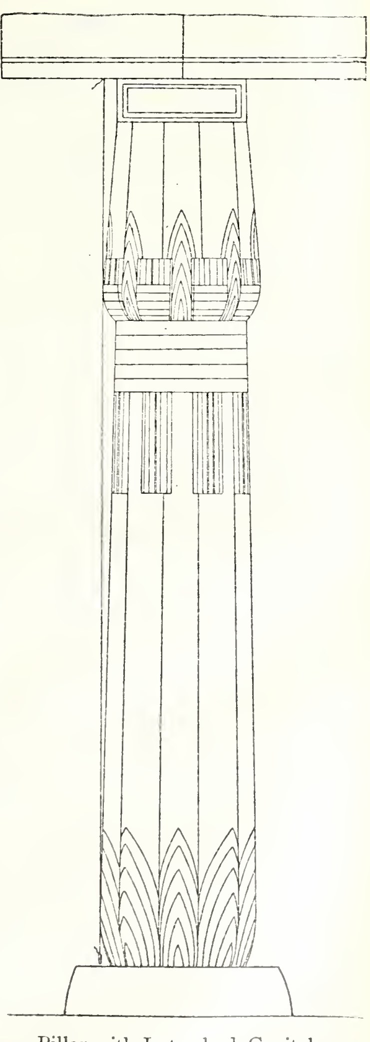


Capital of a Pillar with Inverted Ornamentation. (From *Prisse d'Avennes.*)



Hathor-headed Capital. (From *Prisse d'Avennes.*)

The **houses of the upper middle class** inhabitants of ancient Egypt were pretty much what they were a century or so ago, that is to say, they were built chiefly of sun-dried mud bricks, in two storeys, with small windows cut high up in the walls, and flat roofs, and surrounded by a wall. All round the house was ground which was laid out as a garden, in rectangular patches of a convenient size for watering, and near it were huts or small rooms in which the servants or slaves lived; a portion of the garden contained palms and pomegranate trees, and if it were large enough to include a small lake a number of flowering plants would appear in it. The outside of the house was whitewashed, and the walls of the rooms were distempered in some pretty colour; the doors were of wood, panelled and perhaps inlaid with different coloured woods. The courtyard was probably tiled, especially that portion of it where the frame for the water jars stood. The well-to-do **farm**, like a good house, was rectangular, and was built with strong mud-brick walls; it stood within an enclosure with mud walls, inside which the donkeys and cattle were brought when necessary. The **dwellings of the very poor**, both in



Pillar with Lotus-bud Capital.
(From *Prisse d'Avennes.*)

the towns and in the country, were merely mud hovels, and the dirt, squalor, and misery of their inhabitants must have been what they are in many parts of the Ottoman Empire at the present day. Kings and nobles no doubt built imposing palaces and mansions, which were decorated within and without, and were furnished with everything that the civilization of the day could provide. The King's **palace** was often attached to the temple, and it appears to have consisted of two or more courtyards, inside each of which a number of small rooms were grouped after the manner of a *khan* or Oriental inn; each courtyard was entered through a gateway, sometimes made in the form of a pylon, and sometimes in the form of the gate of a fortress. The outer courtyard contained the rooms where state functions were celebrated and business transacted, and in the inner were probably the king's private apartments, and the rooms wherein the royal ladies lived. Of the public buildings very little is known, but it is safe to assume that the barracks and prisons much resembled those which were to be found in Egypt before the rule of the British. In recent years more burnt bricks are used than formerly. The frames of both windows and doors are made of wood; glass is used freely, double roofs are common, and, as a result of stricter supervision, the modern Egyptian artisan turns out better work.

We have now to consider how tombs and temples were ornamented, and this brings us to the mention of **bas-reliefs** and **painting**. The earliest decoration consists of series of figures of men, animals, etc., traced or cut in outline upon a prepared surface; this surface may be either stone made smooth or stone covered with a layer of white plaster, on which the figures are traced in coloured outline. In another form of wall decoration the whole figure is hollowed out and coloured—in fact, is given in sunk relief. In the bas-relief the figures are raised a little above the rest of the surface of the slab. The weak part of all these kinds of ornamentation is caused by the fact that the painter and mason, or rather the artist who set out the plan of decoration, tried to show every portion of the body. Thus, though the head is given in profile the eye is represented as if the figure were in a full-faced position. A front view is given of the shoulders, but the view of the other portions of the body is a mixture of profile and full-face. This was the traditional and conventional method of drawing figures of men and animals, and the majority of artists

followed it in every period of Egyptian history. Unfortunately it gives us a false idea of the ability of the Egyptian artist, who, when he was not hampered by this false method, was able to produce paintings and reliefs which are wonderfully true to nature, and correct according to canons of art. Occasionally, even in solemn scenes, we find an artist treating some minor figure or detail of a scene in a purely realistic manner, and it is impossible not to wonder why, since he possessed such artistic skill, he was content to go on repeating mechanically the old pictures in a manner which belonged to the period of the beginning of Egyptian art. It is surprising, too, to note the sameness of the scenes depicted, and the paintings in the tombs suggest that every man who could afford a decorated tomb did exactly the same things during his life. We have sacrificial scenes, agricultural scenes, hunting scenes, etc., all repeated with such tiring monotony that it suggests the existence of a body of funeral artists and workmen who were prepared to turn out a given style of tomb with its stereotyped wall paintings at a fixed price. In spite of all these defects, however, there exist numerous paintings and bas-reliefs, and portrait figures which prove that the Egyptian could be a true artist, and it is a matter for regret that the names of the great painters of the Ancient Empire are unknown.

In the reign of Åmen-ḥetep IV a vigorous **attempt was made to set art free** from the shackles of tradition and conventionality, but the paintings and drawings from Tall al-'Amârnah, where this king founded his new capital and lived for several years, do not reflect the best and truest form of Egyptian art, and it is evident that even the figures of the king himself are caricatures. In addition to new designs the artists of the day introduced **new colours**, but these became synonymous with heterodoxy, and after that king's death they are seen no more. Under the XIXth dynasty Egyptian art improved in some respects, but deteriorated in others, and it is only from isolated examples that we see that the realistic element was not wholly dead. Under the Priest-Kings of the XXIInd dynasty the realistic element was crushed, and every court artist copied ancient models in a slavish manner.

The **sculptor** was fettered as much as the painter, and his style and methods were hampered by the kind of work which he had to turn out. His employers were chiefly powerful priestly corporations, which employed his services in making statues of gods and kings for the temples. The gods were

portrayed in traditional attitudes, and as long as the sculptor gave his work dignity, and an appearance of massive strength, combined with impassibility, nothing further was required of him. In the case of royal statues intended for public exhibition it was necessary for him to follow precedent, and to represent the king in a simple attitude of sitting or standing, of which dignity and repose of features are the chief characteristics. The sculptor worked according to a canon of proportion which was fixed in very early times, and, except in the matter of private "commissions," he was obliged to follow it blindly, just as the painter was obliged to repeat scenes which he knew to be full of bad drawing. Frequently, however, we find statues which for beauty and fidelity to life cannot be surpassed, and we can only wonder how it was that the rulers and priests of Egypt allowed so many rigid and formal statues and figures to pass as portraits of themselves. The visitor to the Egyptian Museum in Cairo has only to compare the famous wooden figure of the **Shêkh al-Balad**, and the hard stone **statue of King Khephren**, with many which he will see near them to realize the marvellous power to portray faces which the sculptors of these works possessed. As a rule, the best work of the sculptor is displayed in the statues and figures of private persons, and when we consider what beautiful work is executed in the hardest kinds of stone, *e.g.*, diorite, quartzite, granite, red, grey, and black, few will deny that the best of Egyptian painters and sculptors must be reckoned among the greatest artists of antiquity. The wonder is that the colossus of religious traditions and conventionality did not crush art entirely.

In the earliest times the walls of tombs and temples were bare, except for a few inscriptions; later, figures of men, animals, &c., appear on the walls, either traced in outline or in sunk relief. Under the Vth dynasty every available space in the tomb was occupied with scenes and texts painted in bright colours, and the ceilings were ornamented with floral or geometrical patterns. Under the XIth and XIIth dynasties the interiors of temples were decorated with scenes connected with the worship of the gods, or with representations of the king making offerings, &c. Under the XVIIIth and following dynasties the outsides of the temples were decorated with inscriptions recording the prowess of the king in battle, and with scenes illustrating the most important incidents of his wars. The insides of the temples, however, were reserved

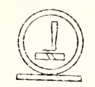
chiefly for representations of a religious character, and these afford much information concerning temple ritual. In the case of Ptolemaïc temples the religious element is predominant in all the texts and scenes, both inside and outside, and at Philæ illustrations are found of ancient Egyptian legends, which are extremely rare. Everything connected with the architecture and art of the Egyptians proves that they possessed the capacity of taking infinite pains, and that in order to produce beautiful things they gave an amount of time, thought, and work which it is almost impossible to conceive.

The limited space at our disposal only permits the briefest reference to the artistic skill displayed by the Egyptians in the objects of daily life, *i.e.*, clothes, ornaments, jewellery, &c. In the manipulation of flax they attained a high pitch of perfection at a very early period, and the "fine **linen** of Egypt" became proverbial among the nations. Since every Egyptian wore linen garments, and mummies were swathed in voluminous linen wrappings, the quantities of linen fabrics required for native use must have been enormous. Flax growing and linen weaving must have formed, next to agriculture, the principal occupation of the working population. The salmon-coloured linen of Egypt was pretty, and the ornamental edgings, usually in some subdued colour, and the fringes are in excellent taste. Few, if any, nations have equalled the Egyptians in the fineness of their work, and weaving experts have declared that no modern manufacturer has succeeded in weaving so many threads to the inch as the ancient Egyptian. The skill possessed by him in the **working of metals** is another matter for wonder, for even in the VIth dynasty he was able to cast in bronze large statues of his kings; these were cast in sections, and it is clear that he understood the operations of smelting and mixing metals, and the making of moulds and castings. His skill must not be judged by the statues of gods and kings which have come down to us in gold, silver, and bronze, but by the objects found in the tombs of private individuals. The **jewellery** is best illustrated by the ornaments, collars, necklaces, pendants, rings, amulets, &c., which were found in the royal tombs at Dahshûr, and by the gold objects of various kinds from the tomb of Queen Ȧāḥ-ḥetep. All these are in the Egyptian Museum in Cairo. Many of the personal ornaments are inlaid with carnelian, lapis-lazuli, the root of

emerald, or with plaques of *faïence*, or Egyptian porcelain; it is often declared that the art of enamelling was practised in Egypt, but the evidence on which this assertion rests is not conclusive. Extraordinary skill is exhibited in the inlaying of objects with linear and floral designs in gold, one of the finest examples of this kind of work being the spear-head of King Kames, about 1750 B.C. The potter's art is one in which the Egyptian has always excelled, and even at the present day, if the demand existed, there is nothing which is made of mud or clay that he would not quickly produce. The **pottery** from the excavations which have been made during the last fifteen or twenty years on pre-dynastic sites in Egypt, proves that the primitive inhabitants of the land made their earthenware vessels without the help of the potter's wheel. They were, at first, small in size and undecorated, and were probably used chiefly for funereal purposes. At a very early period the Egyptians discovered how to make their pots black and shiny, and later they began to decorate them with incised patterns, and to paint their outer surfaces with a white slip. At a still later period they succeeded in making jars to hold wine, unguents, and grain, or flour, of a large size, some of them being about three feet high. With the advent of the dynastic Egyptians, it became the fashion to use funereal vessels made of stone instead of earthenware, and of these large collections are to be seen in the National Museums of Europe. The stones used in making such vessels are granite, basalt, breccia, diorite, quartzite, marble, and alabaster of all kinds, &c. These are cut and shaped and smoothed and polished with extraordinary skill, and in many cases the forms of the vessels are exceedingly graceful. The small vessels, *e.g.*, unguent flasks and vases for scents, which were made during the Archaic Period are very pretty, and the necks and handles prove that the skill of the stone-worker at that time was very great.

9. A List of the Names of the Principal Egyptian Kings.

THE visitor to Egypt who takes an interest in the ancient Egyptian monuments will notice on the obelisks, walls of temples, &c., the frequent occurrence of the oval ⊂⊃ with a number of hieroglyphics inside it; to this oval the

name **cartouche** has been given, and the characters inside it form the name of some royal personage. The suggestion that cartouches contained royal names was first made by Zoëga in the last quarter of the 18th century. Cartouches carefully cut in stone show that the object which encloses the name is in reality a cord, which is tied in a knot at one end, and it seems that the knotted cord was believed in early times to protect the royal name, and therefore the royal personage who bore it. Cartouche in Egyptian is called SHENNU and its oldest form is circular, as we see from the scene on the vase of King **Besh**, whose name is written on it in a circle thus . This circle symbolized the *shen* or circular course of the sun about the universe, and when the king's name was written inside it, the meaning was that the king was the representative of the Sun-god, that his rule extended to every part of the course of the sun, and that both he and his name would, like the sun, endure for ever. The texts prove that in the dynastic period a king possessed *five* royal names or titles. Thus the **Horus-name** of Apries was "Uaḥ-âb"; his **Nebti-name** was "Neb-khepesh"; his **Horus-of-gold** name was "Seuatch-Taui"; his **Nesu båt** name was "Ḥāā-âb-Rā"; and his **Son-of-Rā** name was "Uaḥ-âb-Rā." The Horus-name, or **Ka-name** as it is sometimes called, was written in a rectangular space which is called *serekh*. Some think that the *serekh* represented a "sort of banner," or "cognizance," but it is tolerably certain that it represented the funerary abode in which the Ka, or double of the king, lived. In the earliest times, when the Hawk-god Horus was the chief object of worship in the country, the king, as his representative on earth, took a special title, just as in later days, when Rā took the place of Horus, the king assumed a new title as the Son of Rā. The title "lord of [the shrine of] the vulture, lord of [the shrine of] the uræus", dates from the time when the city of Nekhebet in Upper Egypt and of Per-Uatchet in Lower Egypt represented

the two great ecclesiastical divisions of Egypt. In the king lists it is common to give the name of a king as **King of the South and North** ***nesu bȧt*, and his name as the **son of Rā** *Sa Rā*, and in inscriptions on monuments, etc., two cartouches will usually be found whenever the king's names are mentioned, thus .
In modern books the first cartouche is said to contain the **prenomen**, and the second the **nomen.** The earlier kings bore short, simple names, as "Kings of the South and North," *e.g.*, MENȦ (Menes) , TETȦ , etc.; in the XVIIIth and later dynasties they became much longer, *e.g.*, Usr-khāu-Rā-setep-en-Rā-meri-Ȧmen (Set-Nekht), Kheper-sekhem-Rā-setep-en-Rā (Osorkon I.). Kings sometimes prefixed to their cartouches the titles NETER NEFER , "beautiful god," NEB TAUI , "lord of the two lands," *i.e.*, "lord of the South and North," NEB-KHĀU , "lord of diadems," etc. The title Pharaoh (פַּרְעֹה), which we find in the Bible, is derived from the Egyptian PER-ĀA , and means "Great House"; it indicates that the king was regarded as the "Great House" in which all men lived. In late times this title was loosely used, and was often given to, or usurped by, petty rulers and governors, who had no right at all to style themselves Pharaoh.

The following is a list of the prenomens and nomens of Egyptian kings which are of common occurrence, with transliterations into Roman letters. The first hundred or so belong to the period which begins with Menȧ, the unifier of the two Egypts, and ends with Nectanebus II., the last native king of Egypt; these are found on scarabs as well as on monuments of all kinds. The remainder of the cartouches contain the

* means "King of the South," and "King of the North."

names and titles of the Ptolemies and of a number of Roman Emperors :—

Dynasty I.

MENÀ. ÀTET.

SEM-TI. PER-ÀB-SEN.

Dynasty III.

TCHESER.

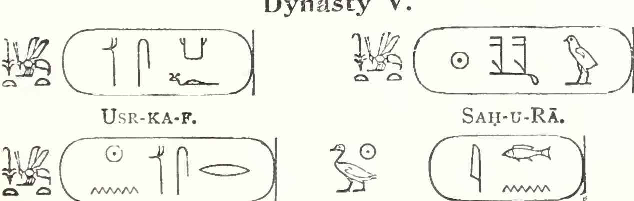
NEFER-KA-RĀ, son of the Sun, ḤUNI.

Dynasty IV.

SENEFERU. KHUFU. (CHEOPS.)

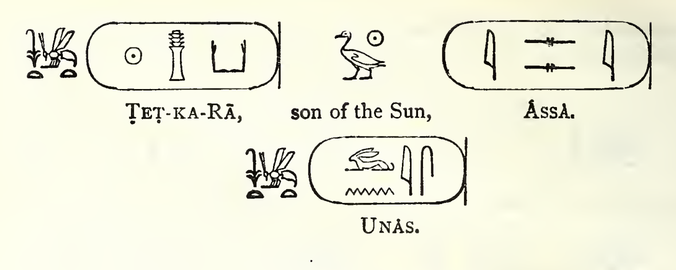
KHĀ-F-RĀ. (CHEPHREN.) MEN-KAU-RĀ. (MYCERINUS.)

Dynasty V.



USR-KA-F. SAḤ-U-RĀ.

USR-EN-RĀ, son of the Sun, ÀN.

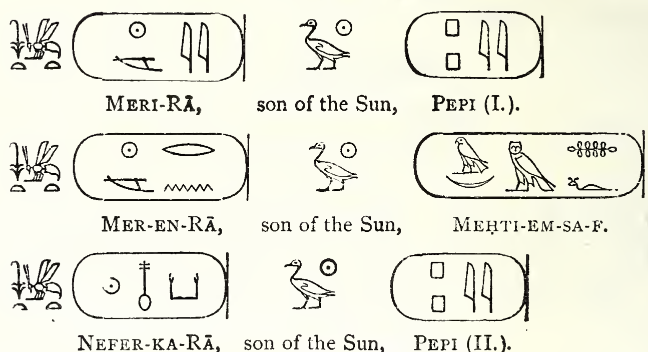


ṬEṬ-KA-RĀ, son of the Sun, ÅSSA.



UNÅS.

Dynasty VI.



MERI-RĀ, son of the Sun, PEPI (I.).

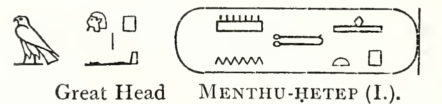
MER-EN-RĀ, son of the Sun, MEḤTI-EM-SA-F.

NEFER-KA-RĀ, son of the Sun, PEPI (II.).

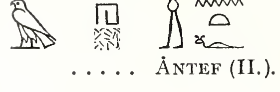
Dynasty XI.

The founder of this dynasty was ERPĀ ḤA-Ā ÅNTEF

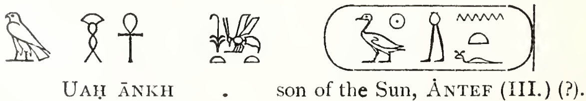
The Erpā and great chief ÅNTEF (I.).



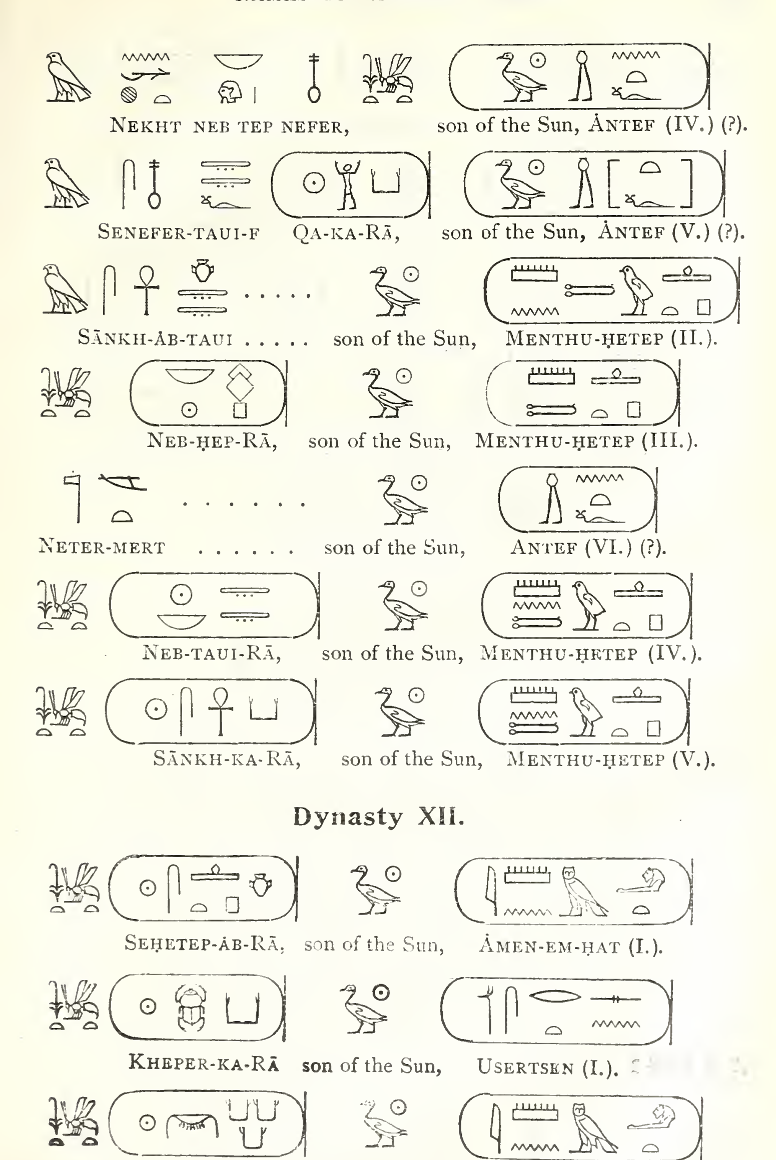
Great Head MENTHU-ḤETEP (I.).

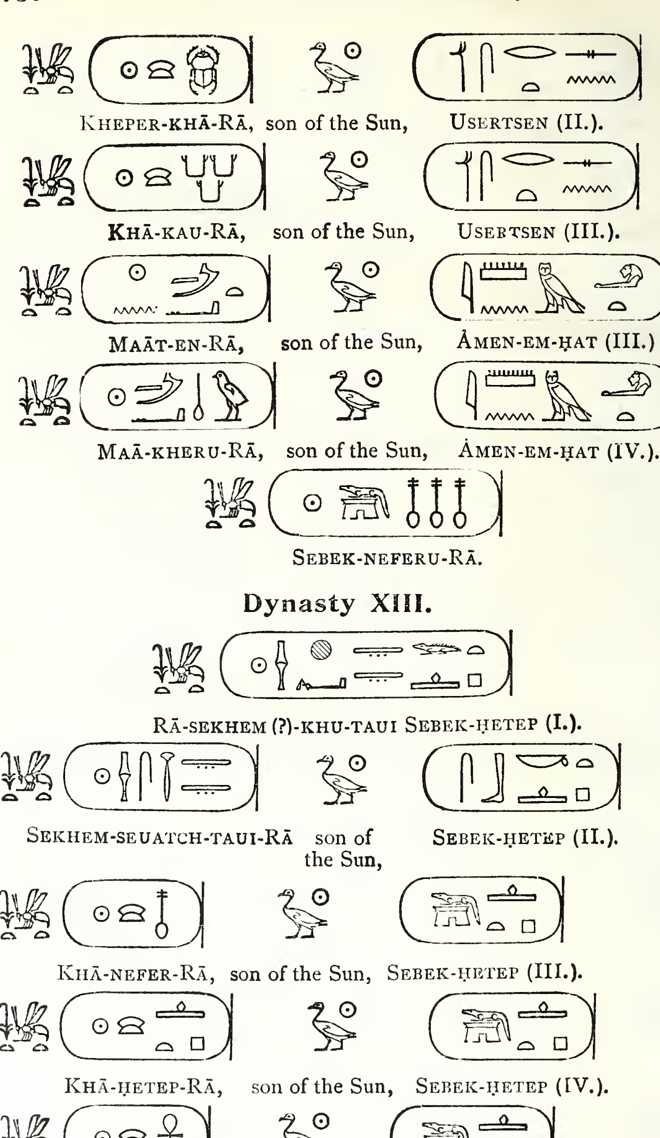


. . . . . ÅNTEF (II.).



UAḤ ĀNKH . son of the Sun, ÅNTEF (III.) (?).


NEKHT NEB TEP NEFER, son of the Sun, ÅNTEF (IV.) (?).
SENEFER-TAUI-F QA-KA-RĀ, son of the Sun, ÅNTEF (V.) (?).
SĀNKH-ÅB-TAUI . . . . . son of the Sun, MENTHU-ḤETEP (II.).
NEB-ḤEP-RĀ, son of the Sun, MENTHU-ḤETEP (III.).
NETER-MERT . . . . . . son of the Sun, ÅNTEF (VI.) (?).
NEB-TAUI-RĀ, son of the Sun, MENTHU-ḤETEP (IV.).
SĀNKH-KA-RĀ, son of the Sun, MENTHU-ḤETEP (V.).
Dynasty XII.
SEḤETEP-ÅB-RĀ, son of the Sun, ÅMEN-EM-ḤAT (I.).
KHEPER-KA-RĀ son of the Sun, USERTSEN (I.).
NUB-KAU-RĀ, son of the Sun, ÅMEN-EM-ḤAT (II.).


KHEPER-KHĀ-RĀ, son of the Sun, USERTSEN (II.).
KHĀ-KAU-RĀ, son of the Sun, USERTSEN (III.).
MAĀT-EN-RĀ, son of the Sun, ÅMEN-EM-ḤAT (III.)
MAĀ-KHERU-RĀ, son of the Sun, ÅMEN-EM-ḤAT (IV.).
SEBEK-NEFERU-RĀ.
Dynasty XIII.
RĀ-SEKHEM (?)-KHU-TAUI SEBEK-ḤETEP (I.).
SEKHEM-SEUATCH-TAUI-RĀ son of the Sun, SEBEK-ḤETEP (II.).
KHĀ-NEFER-RĀ, son of the Sun, SEBEK-ḤETEP (III.).
KHĀ-ḤETEP-RĀ, son of the Sun, SEBEK-ḤETEP (IV.).
KHĀ-ĀNKH-RĀ, son of the Sun, SEBEK-ḤETEP (V.).

SEKHEM-UATCH-KHĀU-RĀ, son of the Sun, SEBEK-EM-SA-F (I.).

SEKHEM-SHEṬ-TAUI-RĀ, son of the Sun, SEBEK-EM-SA-F (II.).

KHU-TAUI-RĀ, son of the Sun, HERU-NEST-TAUI (?)

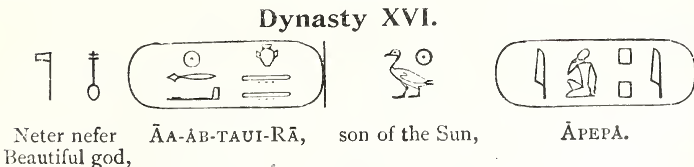
Dynasty XV.

ĀA-PEḤ-PEḤ-SET, son of the Sun, NUB-SET (?).

SE-USER-EN-RĀ, son of the Sun, KHIAN.

KA-SET-RĀ.

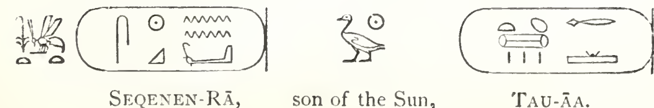
Dynasty XVI.



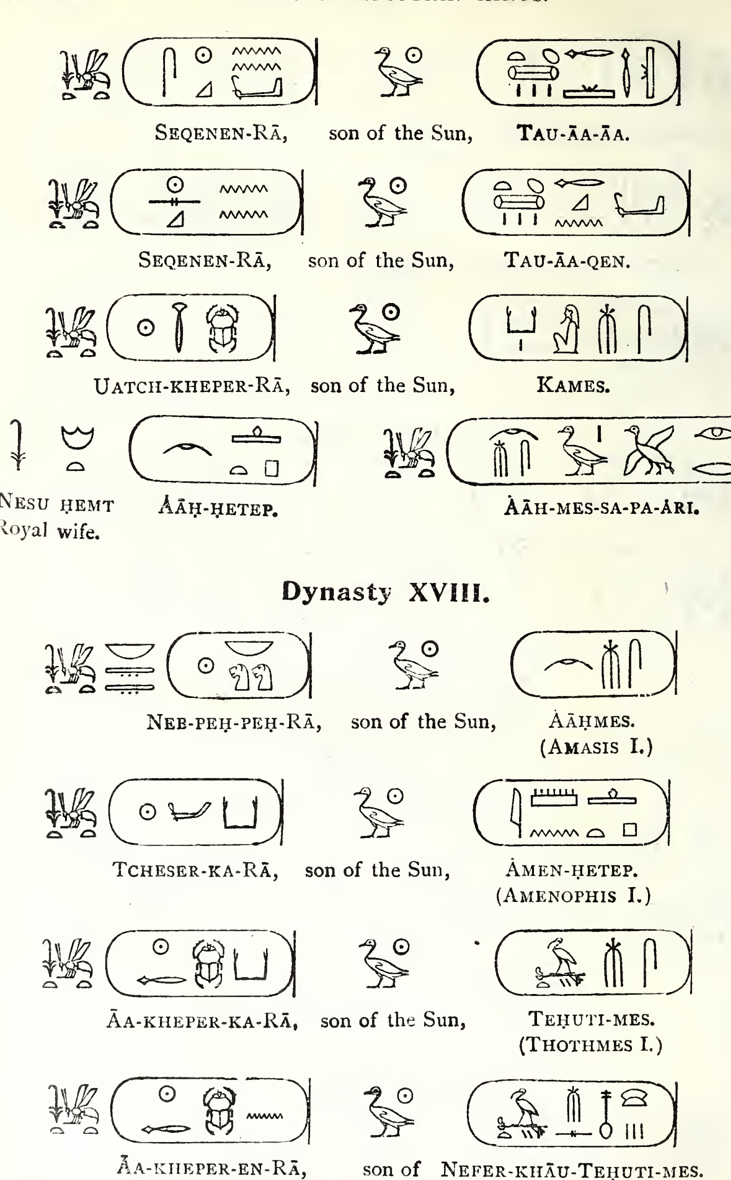
Neter nefer Beautiful god, ĀA-ĀB-TAUI-RĀ, son of the Sun, ĀPEPA.

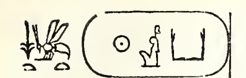
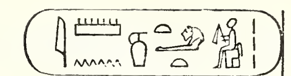
or neter nefer ĀA-QENEN-RĀ,

Dynasty XVII.

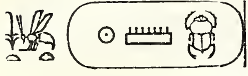


SEQENEN-RĀ, son of the Sun, TAU-ĀA.

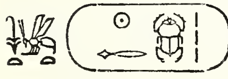
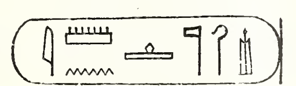

SEQENEN-RĀ,
son of the Sun,
TAU-ĀA-ĀA.
SEQENEN-RĀ,
son of the Sun,
TAU-ĀA-QEN.
UATCH-KHEPER-RĀ,
son of the Sun,
KAMES.
NESU HEMT
Royal wife.
ȦĀḤ-ḤETEP.
ȦĀH-MES-SA-PA-ȦRI.
Dynasty XVIII.
NEB-PEḤ-PEḤ-RĀ,
son of the Sun,
ȦĀḤMES.
(AMASIS I.)
TCHESER-KA-RĀ,
son of the Sun,
ȦMEN-ḤETEP.
(AMENOPHIS I.)
ĀA-KHEPER-KA-RĀ,
son of the Sun,
TEḤUTI-MES.
(THOTHMES I.)
ĀA-KHEPER-EN-RĀ,
son of the Sun,
NEFER-KHĀU-TEḤUTI-MES.
(Thothmes II.)

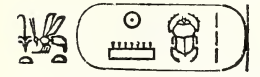
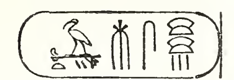
MAĀT-KA-RĀ, son of the Sun, ḤAT-SHEPSUT-KHNEM-ÅMEN.
(QUEEN ḤATSHEPSU.)

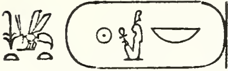
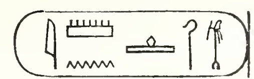
MEN-KHEPER-RĀ, son of the Sun, TEḤUTI-MES.
(THOTHMES III.)

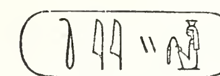
ĀA-KHEPERU-RĀ, son of the Sun, ÅMEN-ḤETEP NETER ḤEQ ÅNNU. (AMENOPHIS II.)

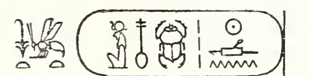
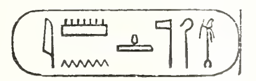
MEN-KHEPERU-RĀ, son of the Sun, TEḤUTI-MES-KHĀ-KHĀU.
(THOTHMES IV.)

NEB-MAĀT-RĀ, son of the Sun, ÅMEN-ḤETEP ḤEQ UAST.
(AMENOPHIS III.)

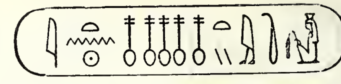
NESU ḤEMT TI.
(THE MESOPOTAMIAN WIFE OF AMENOPHIS III.)

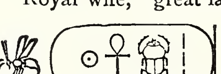
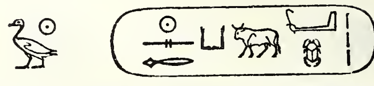
NEFER-KHEPERU-RĀ-UĀ-EN-RĀ, son of the Sun, ÅMEN-ḤETEP NETER ḤEQ UAST (AMENOPHIS IV.).



or ÅAKHU-EN-ÅTEN.

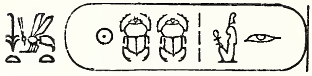
NESU ḤEMT URT NEFER NEFERU-ÀTEN NEFERTI-IT.
Royal wife, great lady.

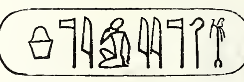



ĀNKH-KHEPERU-RĀ, son of the Sun, SEĀA-KA-NEKHT-KHEPERU-RĀ

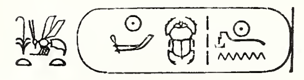
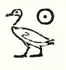
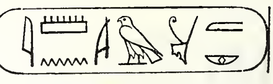


NEB-KHEPERU-RĀ, son of the Sun, TUT-ĀNKH-ÀMEN ḤEQ ÀNNU RESU (?).



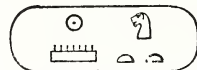
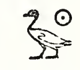
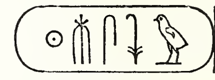


KHEPER-KHEPERU-MAĀT-ÀRI-RĀ, son of the Sun, ÀTF-NETER ÀI NETER ḤEQ UAST.

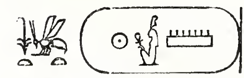
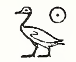
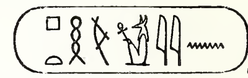




TCHESER-KHEPERU-RĀ-SETEP-EN-RĀ, son of the Sun, ÀMEN-MERI-EN ḤERU-EM-ḤEB.

Dynasty XIX.

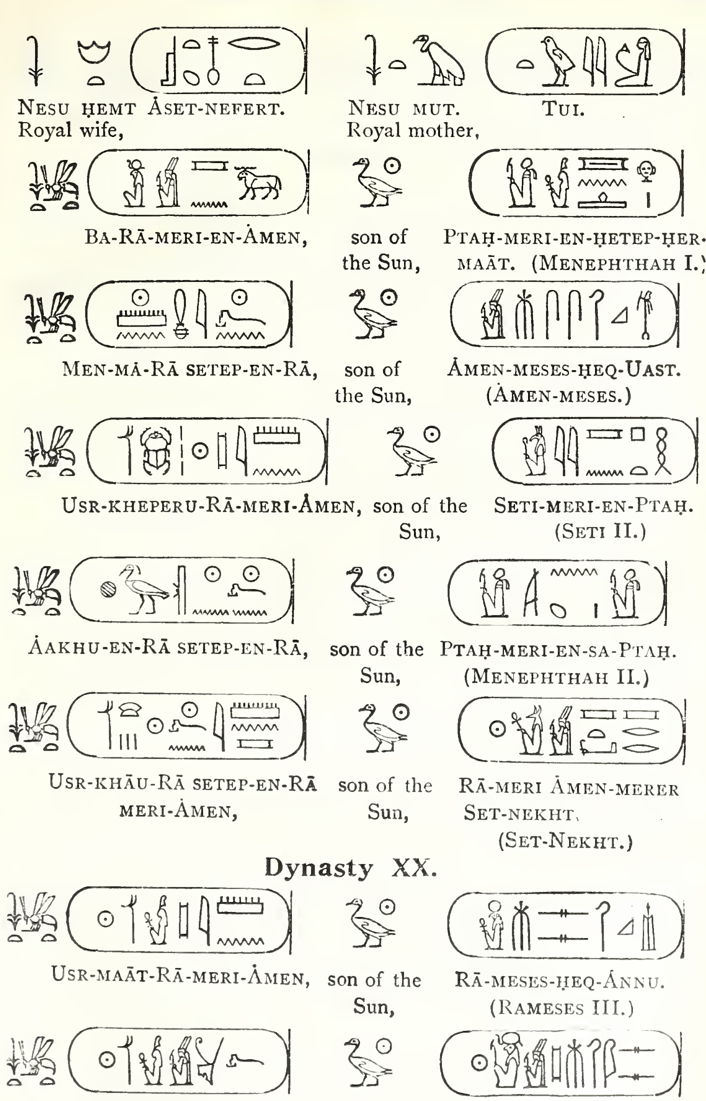
MEN-PEḤTET-RĀ, son of the Sun, RĀ-MESSU. (RAMESES I.)

MEN-MAĀT-RĀ, son of the Sun, PTAḤ-MERI-EN-SETI. (SETI I.)




USR-MAĀT-RĀ SETEP-EN-RĀ, son of the Sun, RĀ-MESSU-MERI-ÀMEN. (RAMESES II.)



NESU ḤEMT ÅSET-NEFERT. Royal wife,

NESU MUT. Royal mother, TUI.

BA-RĀ-MERI-EN-ÅMEN, son of the Sun, PTAḤ-MERI-EN-ḤETEP-ḤER-MAĀT. (MENEPHTHAH I.)

MEN-MÅ-RĀ SETEP-EN-RĀ, son of the Sun, ÅMEN-MESES-ḤEQ-UAST. (ÅMEN-MESES.)

USR-KHEPERU-RĀ-MERI-ÅMEN, son of the Sun, SETI-MERI-EN-PTAḤ. (SETI II.)

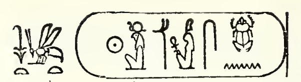
ÅAKHU-EN-RĀ SETEP-EN-RĀ, son of the Sun, PTAḤ-MERI-EN-SA-PTAḤ. (MENEPHTHAH II.)

USR-KHĀU-RĀ SETEP-EN-RĀ MERI-ÅMEN, son of the Sun, RĀ-MERI ÅMEN-MERER SET-NEKHT. (SET-NEKHT.)

Dynasty XX.

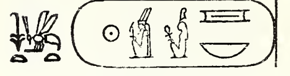
USR-MAĀT-RĀ-MERI-ÅMEN, son of the Sun, RĀ-MESES-ḤEQ-ÅNNU. (RAMESES III.)

USR-MAĀT-RĀ SETEP-EN-ÅMEN, son of the Sun, RĀ-MESES-MERI-ÅMEN-RĀ ḤEQ MAĀT. (RAMESES IV.)

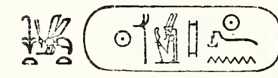




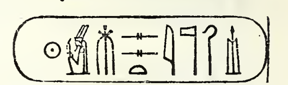
USR-MAĀT-RĀ S-KHEPER-EN-RĀ, son of the Sun, RĀ-MES-MERI ÅMEN-ÅMEN NESU-F. (RAMESES V.)



RĀ-ÅMEN-MAĀT-MERI-NEB, son of the Sun, RĀ-ÅMEN-MESES NETER ḤEQ ÅNNU. (RAMESES VI.)







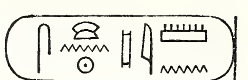
RĀ-USR-ÅMEN-MERI-SETEP-EN-RĀ, son of the Sun, RĀ-ÅMEN-MESES-TÅ NETER-ḤEQ-ÅNNU. (Rameses VII.)

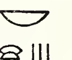


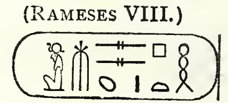




RĀ-MAĀT-USR-ÅAKHU-EN-ÅMEN, son of the Sun, RĀ-ÅMEN-MESES-MERI-ÅMEN. (RAMESES VIII.)







Neb ta Lord of the land, S-KHĀ-EN-RĀ MERI-ÅMEN, neb khāu lord of crowns, RĀ-MESES-SA-PTAḤ. (RAMESES IX.)

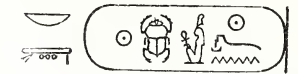








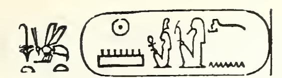
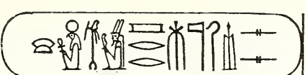
NEFER-KAU-RĀ SETEP-EN-RĀ, son of the Sun, RĀ-MESES-MERER-ÅMEN-KHĀ-UAST (?). (RAMESES X.)





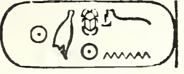
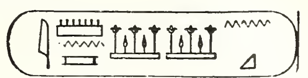


RĀ-KHEPER-MAĀT SETEP-EN-RĀ, son of the Sun, RĀ-MES NESU (?) ÅMEN. (RAMESES XI.)

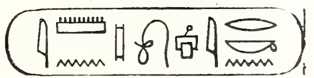
  

MEN-MAĀT-RĀ SETEP-EN-RĀ, son of the Sun, RĀ-MESES-MERER-ÀMEN KHĀ UAST (?) NETER ḤEQ ÀNNU. (RAMESES XII.)

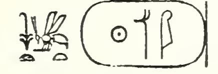
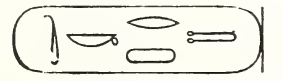
Dynasty XXII.

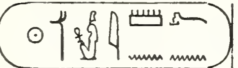
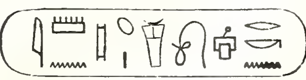
KHEPER-ḤETCH-RĀ SETEP-EN-RĀ, son of the Sun, ÀMEN-MERI-SHASHANQ. (SHISHAK I.)

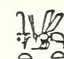
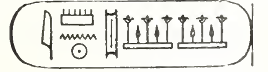
SEKHEM-KHEPER-RĀ SETEP-EN-RĀ, son of the Sun, ÀMEN-MERI UASÀRKEN. (OSORKON I.)

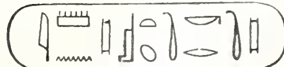
USR-MAĀT-RĀ, son of the Sun, TEKELETH.

RĀ-USR-MAĀT SETEP-EN-ÀMEN, son of the Sun, ÀMEN-MERI SA-BAST UASARKEN. (OSORKON II.)

KHEPER-SEKHEM-RĀ SETEP-EN-ÀMEN, son of the Sun, ÀMEN-RĀ-MERI SHASHA[NQ]. (SHISHAK II.)

ḤETCH-RĀ SETEP-EN-ÀMEN, NETER ḤEQ UAST, son of the Sun, ÀMEN-MERI ÀSET-MERI TEKELET. (TAKELETH II.)

USR-MAĀT-RĀ SETEP-EN-RĀ, son of the Sun, ÀMEN-MERI-SHASHANQ ḤEQ NETER ÀNNU. (SHISHAK III.)

USR-MAĀT-RĀ SETEP-EN-ÀMEN, son of the Sun, ÀMEN-MERI PA-MÀI. (PA-MAI.)

ÀA-KHEPER-RĀ son of the Sun, SHASHANQ. (SHISHAK IV.)

Dynasty XXIV.

KING KASHTA.

MEN-KHEPER-RĀ, son of the Sun, P-ĀNKHI.

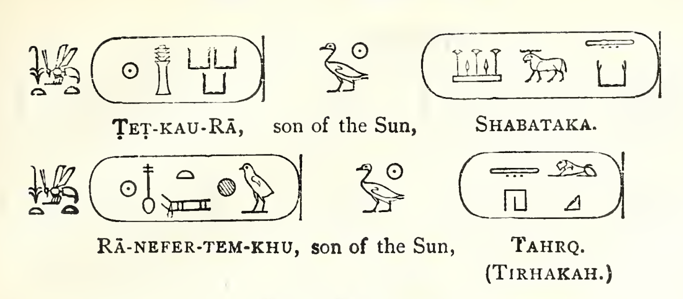
ÀMEN-MERI P-ĀNKHI, son of the Sun, P-ĀNKHI.

UAḤ-KA-RĀ, son of the Sun, BAKENRENF. (BOCCHORIS.)

Dynasty XXV.



NEFER-KA-RĀ, son of the Sun, SHABAKA. (SABACO.)



ṬEṬ-KAU-RĀ, son of the Sun, SHABATAKA.

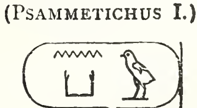
RĀ-NEFER-TEM-KHU, son of the Sun, TAHRQ. (TIRHAKAH.)

Dynasty XXVI.

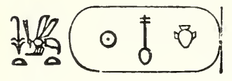


UAḤ-ĀB-RĀ, son of the Sun, PSEMTHEK. (PSAMMETICHUS I.)





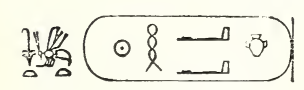
NEM-ĀB-RĀ, son of the Sun, NEKAU. (NECHO II.)



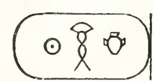




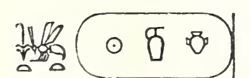
NEFER-ĀB-RĀ, son of the Sun, PSEMTHEK. (PSAMMETICHUS II.)



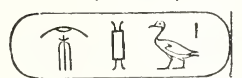




ḤĀĀ-ĀB-RĀ, son of the Sun, UAḤ-ĀB-RĀ. (APRIES.)







KHNEM-ĀB-RĀ, son of the Sun, ĀĀḤMES-SA-NET. (AMĀSIS II.)







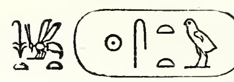
ĀNKH-KA-EN-RĀ, son of the Sun, PSEMTHEK. (PSAMMETICHUS III.)

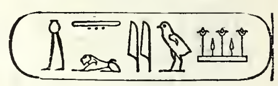
Dynasty XXVII.



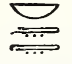
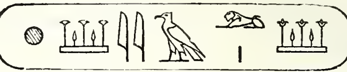
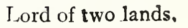


MESUT-RĀ, son of the Sun, KEMBÂTHET. (CAMBYSES.)

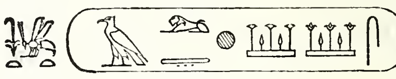




SETTU-RĀ, son of the Sun, ÅNTARIUSHA. (DARIUS HYSTASPES.)

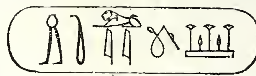




Lord of two lands, KHSHAIARSHA. (Xerxes the Great.)



ARTAKHSHASHAS. (ARTAXERXES.)

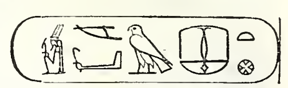




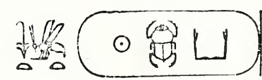
RĀ-MERI-ÅMEN, son of the Sun, ÅNTERIRUTSHA. (DARIUS XERXES.)

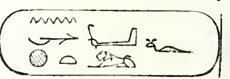
Dynasty XXX.





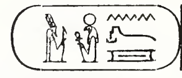
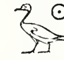
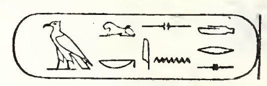
S-NETCHEM-ÅB-RĀ SETEP-EN-ÅMEN, son of the Sun, NEKHT-ḤERU-ḤEBT-MERI-ÅMEN. (NECTANEBUS I.)



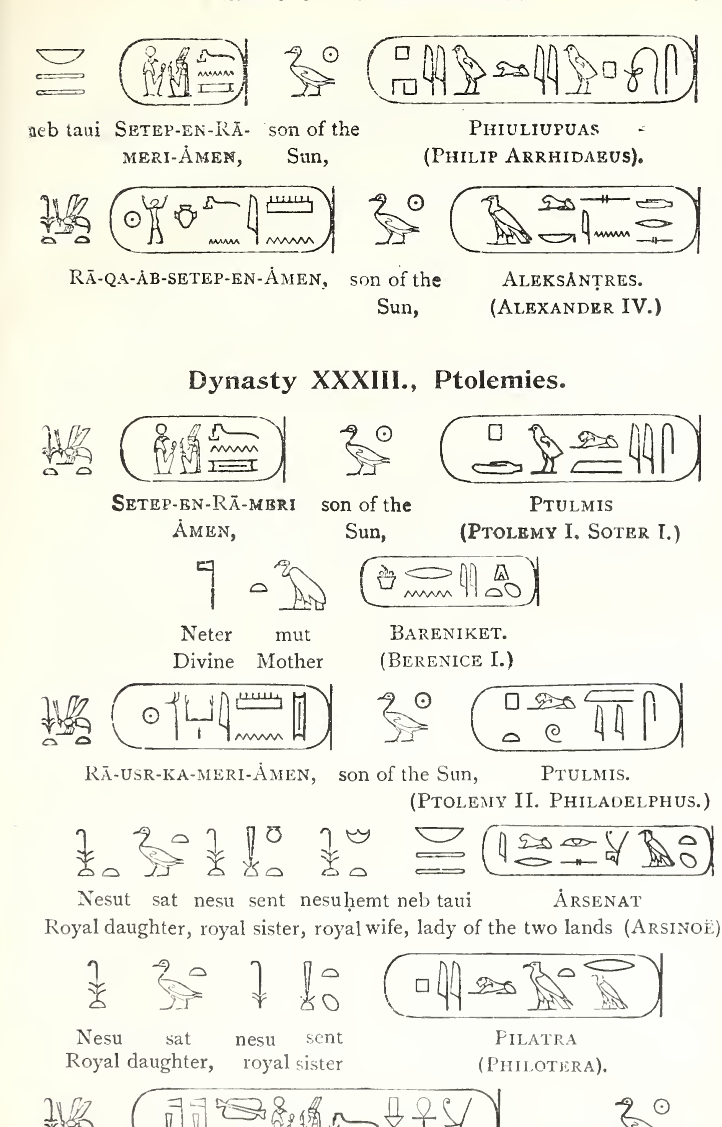


KHEPER-KA-RĀ, son of the Sun, NEKHT-NEB-F. (NECTANEBUS II.)

Dynasty XXXII.

SETEP-EN-RĀ-MERI-ÅMEN. son of the Sun, ALEKSÅNṬRES (ALEXANDER THE GREAT)



neb taui SETEP-EN-RĀ-MERI-ÅMEN, son of the Sun, PHIULIUPUAS (PHILIP ARRHIDAEUS).

RĀ-QA-ÅB-SETEP-EN-ÅMEN, son of the Sun, ALEKSÅNṬRES. (ALEXANDER IV.)

Dynasty XXXIII., Ptolemies.

SETEP-EN-RĀ-MERI ÅMEN, son of the Sun, PTULMIS (PTOLEMY I. SOTER I.)

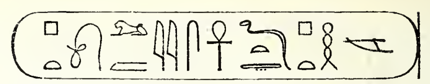
Neter Divine mut Mother BARENIKET. (BERENICE I.)

RĀ-USR-KA-MERI-ÅMEN, son of the Sun, PTULMIS. (PTOLEMY II. PHILADELPHUS.)

Nesut sat nesu sent nesuḥemt neb taui ÅRSENAT
Royal daughter, royal sister, royal wife, lady of the two lands (ARSINOË)

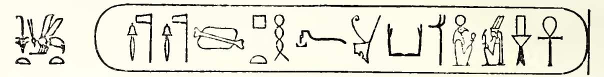
Nesu sat nesu sent PILATRA
Royal daughter, royal sister (PHILOTERA).

NETERUI-SENUI-ĀĀ-EN-RĀ-SETEP-ÅMEN-SEKHEM-EN-ĀNKH, son of the Sun,

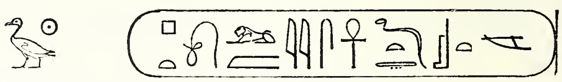


PTUALMIS ĀNKH TCHETTA PTAḤ MERI.
PTOLEMY (III. EUERGETES I.), living for ever, beloved of PTAḤ.

Ḥeqt nebt taui, BĀRENIKAT.
Princess, lady of the two lands, (BERENICE II.)

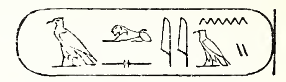


NETERUI-MENKHUI-ĀĀ-PTAḤ-SETEP-EN-RĀ-USR-KA-ÅMEN-SEKHEM-ĀNKH,

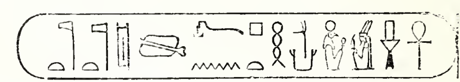


son of the Sun, PTUALMIS ĀNKH TCHETTA ÅSET MERI
PTOLEMY (IV. PHILOPATOR,) living for ever, beloved of ISIS.

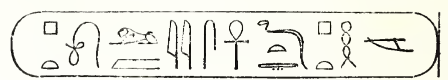
Nesu sat nesu sent ḥemt urt nebt taui
Royal daughter, royal sister, wife, great lady, lady of the two lands



ARSINAI
ARSINOË (III., wife of PHILOPATOR I.).

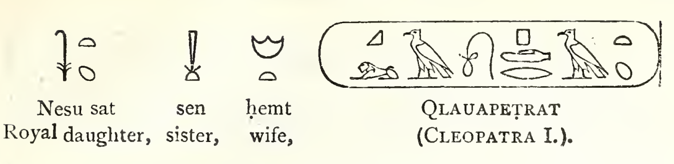


NETERUI-MERUI-[A]TUI-ĀĀ-EN-PTAḤ-SETEP-RĀ-USR-KA-ÅMEN-SEKHEM ĀNKH,

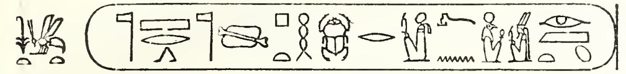
 

son of the Sun, PTUALMIS ĀNKH TCHETTA PTAḤ MERI.
PTOLEMY (V. EPIPHANES) living for ever, beloved of PTAḤ.

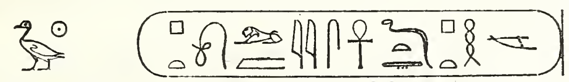
PTOLEMY VI. EUPATOR, wanting.



Nesu sat — sen — ḥemt — QLAUAPEṬRAT
Royal daughter, sister, wife, (CLEOPATRA I.).

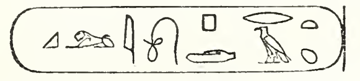


NETERUI-PERUI-ĀĀ-EN-PTAḤ-KHEPER-SETEP-EN-ÅMEN-ÅRI-MAĀT-RĀ



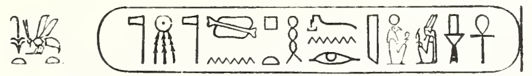
son of the Sun, PTUALMIS ĀNKH TCHETTA PTAḤ MERI.
PTOLEMY (VII. PHILOMETOR I.), living for ever, beloved of PTAḤ.

Nesut sat — nesu — sent — ḥemt — nesu — mut — neb — taui
Royal daughter, royal sister, wife, royal mother, lady of the two lands.

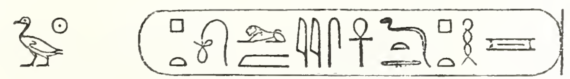


QLÅUAPEṬRAT
(CLEOPATRA II. wife of PHILOMETOR I.)

PTOLEMY VIII. PHILOPATOR II. wanting.

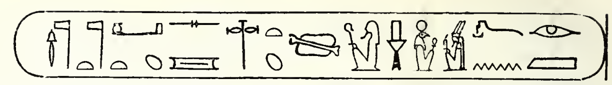


NETERUI-PERUI-ĀĀ-EN-PTAḤ-SETEP-EN-ÅMEN-ÅRI-MAĀT-RĀ-SEKHEM-ĀNKH



son of the Sun, PTUALMIS ĀNKH TCHETTA PTAḤ MERI.
PTOLEMY (IX. EUERGETES II.), living for ever, beloved of PTAḤ.

Nesu båt
King of North and South, lord of two lands,



NETERUI-MENKHUI-MĀT-S-MERI-NETCH-ĀĀ-PTAḤ-SEKHEM-SETEP-EN-RĀ-ÅMEN-ÅRI-MAĀT

Rā sa neb khāu
son of the Sun, lord of diadems,

PTUALMIS ĀNKH TCHETTA PTAḤ MERI.
PTOLEMY X. (SOTER II. PHILOMETOR II.).

Nesu bât,
King of North and South,

NETERUI-MENKHUI-ĀĀ-PTAḤ-SETEP-EN-RĀ-ÅMEN-ÅRI-MAĀT-SENEN-PTAḤ-ĀNKH-EN

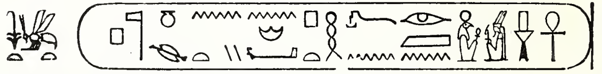
son of the Sun,

PTUALMIS TCHETU-NEF ÅLEKSENTRES ĀNKH TCHETTA PTAḤ MERI, PTOLEMY (XI.) called is he ALEXANDER, living for ever, beloved of PTAḤ.

Ḥeqt neb taui
Princess, lady of two lands,

ERPĀ-UR-QEBḤ-BÅAÅRENEKÅT.
BERENICE (III.).

PTOLEMY XII. (ALEXANDER II.) wanting.



P-NETER-N-ĀĀ-ENTI-NEḤEM-PTAḤ-SETEP-EN-ÅRI-MAĀT-EN-RĀ-ÅMEN-SEKHEM-ĀNKH

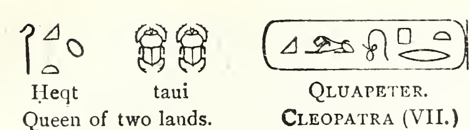
son of the Sun,

PTUALMIS ĀNKH TCHETTA PTAḤ ÅSET MERI.
PTOLEMY (XIII.), living for ever, beloved of ISIS and PTAḤ.

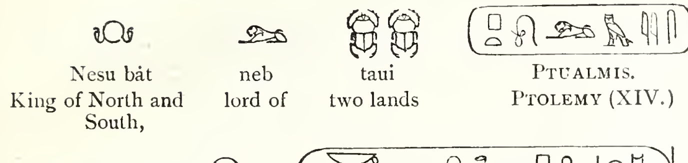


Neb taui
Lady of two lands,

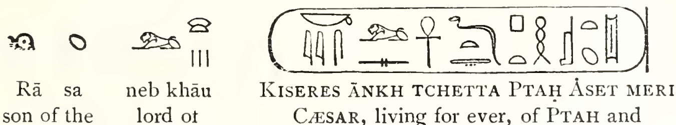
QLAPEṬRAT TCHETTU-NES ṬRAPENET.
CLEOPATRA (V), called is she TRYPHAENA.



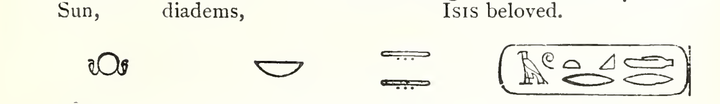
Ḥeqt taui QLUAPETER.
Queen of two lands. CLEOPATRA (VII.)



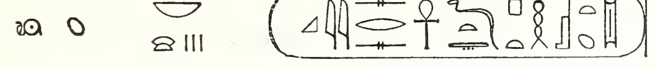
Nesu bȧt neb taui PTUALMIS.
King of North and South, lord of two lands PTOLEMY (XIV.)



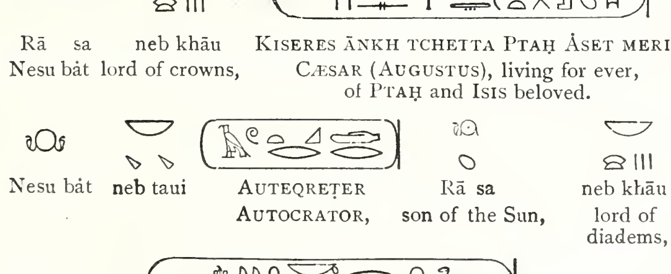
Rā sa neb khāu KISERES ĀNKH TCHETTA PTAḤ ÅSET MERI
son of the Sun, lord of diadems, CÆSAR, living for ever, of PTAḤ and ISIS beloved.



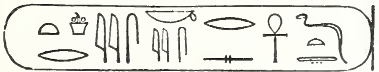
Nesu bȧt neb taui AUTEQRETER
King of North and South, lord of two lands, AUTOCRATOR,



Rā sa neb khāu KISERES ĀNKH TCHETTA PTAḤ ÅSET MERI
Nesu bȧt lord of crowns, CÆSAR (AUGUSTUS), living for ever, of PTAḤ and ISIS beloved.



Nesu bȧt neb taui AUTEQREṬER Rā sa neb khāu
AUTOCRATOR, son of the Sun, lord of diadems,



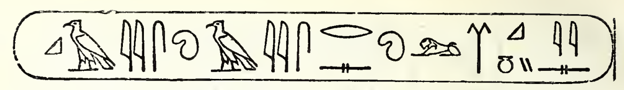
TEBARIS KISERES ānkh tchetta
TIBERIUS CÆSAR living for ever.



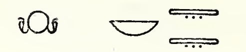


ḤEQ ḤEQU AUTEḲREṬER PTAḤ ÅSET-MERI.
King of kings, AUTOCRATOR, of PTAḤ and ISIS beloved,

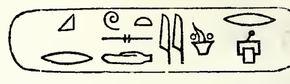
son of the Sun



QAIS KAISERES KERMENIQIS.
GAIUS (CALIGULA) CÆSAR GERMANICUS.



Nesu bȧt neb taui



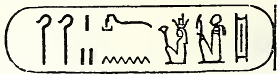
AUTEQRETER KISERES
AUTOCRATOR CÆSAR,







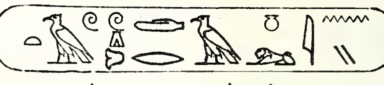




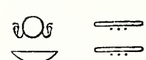
Rā sa neb khāu QLUTES ṬIBARESA.
Sun's son, lord of crowns, CLAUDIUS TIBERIUS.

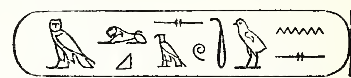






Nesu bȧt neb taui ḤEQ ḤEQU-SETEP-EN-ÅSET MERI PTAḤ
King of North and South, lord of two lands, Ruler of rulers, chosen one of Isis, beloved of PTAḤ.

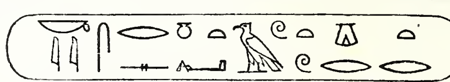




sa Rā neb khāu AUTEḲREṬER ANRȦNI.
Sun's son, lord of crowns, (AUTOCRATOR NERO).



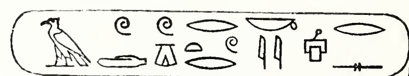
MERQUES AUTUNES (MARCUS OTHO).



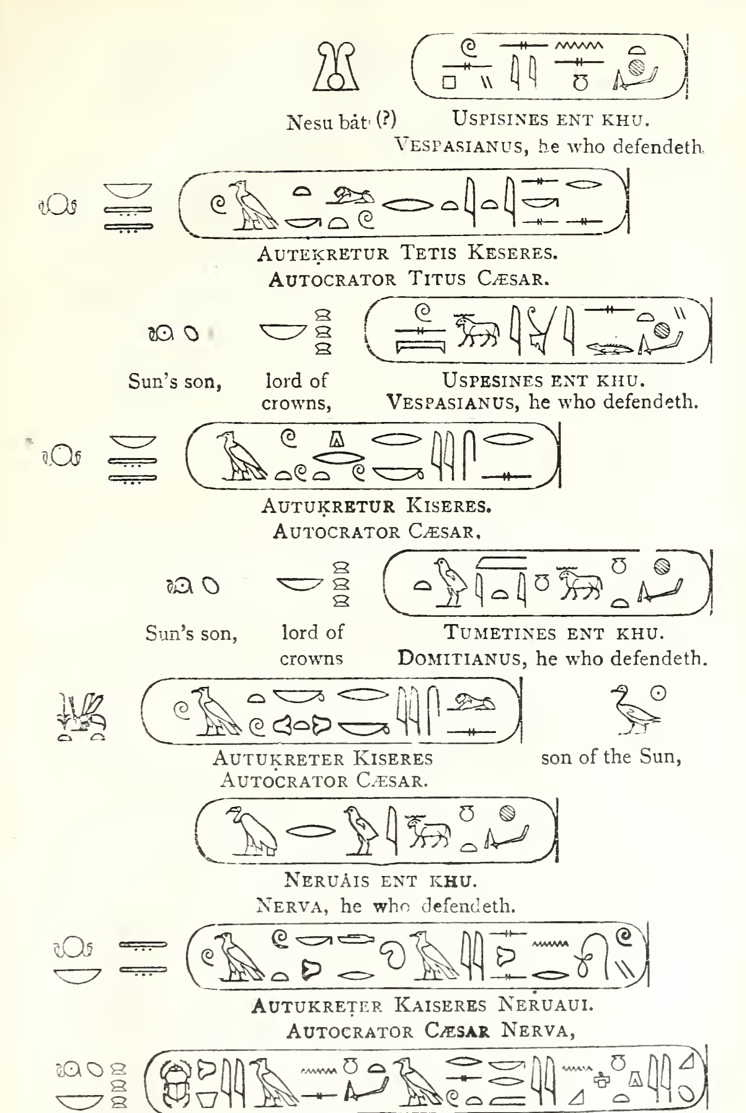
Sun's son, lord of crowns, KISERES ENT KHU AUTUḲRETER.
CÆSAR he who defendeth AUTOCRATOR.

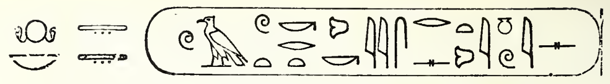
VITELLIUS (wanting).





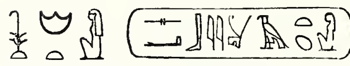
Nesu bȧt (?) AUṬUḲRETUR KISARES.
AUTOCRATOR CÆSAR.


Nesu bȧt (?)
USPISINES ENT KHU.
VESPASIANUS, he who defendeth.
AUTEḲRETUR TETIS KESERES.
AUTOCRATOR TITUS CÆSAR.
Sun's son,
lord of crowns,
USPESINES ENT KHU.
VESPASIANUS, he who defendeth.
AUTUḲRETUR KISERES.
AUTOCRATOR CÆSAR.
Sun's son,
lord of crowns
TUMETINES ENT KHU.
DOMITIANUS, he who defendeth.
AUTUḲRETER KISERES
AUTOCRATOR CÆSAR.
son of the Sun,
NERUȦIS ENT KHU.
NERVA, he who defendeth.
AUTUKREṬER KAISERES NERUAUI.
AUTOCRATOR CÆSAR NERVA,
the Sun's son, lord of crowns,
TRĀIANES ENT KHU ARSUT KERMINEQSA NTEḲIQES.
TRAJAN, (AUGUSTUS) GERMANICUS DACIUS.
he who defendeth.



AUTUKRETER KISERES TRINUS.
AUTOCRATOR CÆSAR TRAJAN,

the Sun's son, lord of crowns. ATRINES ENT KHU.
HADRIAN, he who defendeth.

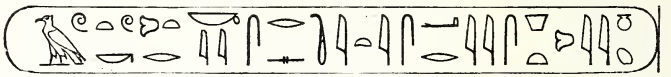


Nesu ḥemt
Royal wife,

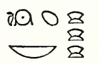
SĀBINAT
SABINA,

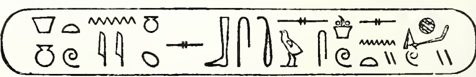
SEBESṬĀ ĀNKH TCHETTA.
SEBASTE living for ever.

King of the North and South, lord of the world,



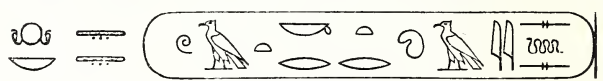
AUTUKRETER KISERES TITES ĀLIS ĀTRINS.
AUTOCRATOR CÆSAR TITUS AELIUS HADRIANUS,



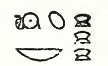


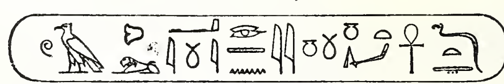
the Sun's son,
lord of crowns,

ANTUNINES SEBESTESUS BAUS ENTI KHUI.
ANTONINUS AUGUSTUS PIUS, he who defendeth.



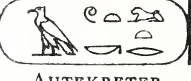
AUTEKRETER KAISERES.
Autocrator Cæsar,





the Sun's son,
lord of crowns,

AURELĀIS ANTININES ENT KHU ĀNKH TCHETTA.
AURELIUS ANTONINUS, he who defendeth, living for ever.



AUTEKRETER
AUTOCRATOR



ḲESERS
CÆSAR



LUKI
LUCIUS

AULLI
AELIUS

UARĀ ĀNKH TCHETTA
VERUS, living for ever.

ÂUTEKRETIRS KISÂURES
AUTOCRATOR CÆSAR.

the Sun's son, lord of crowns,

KĀMṬĀUS Ā-EN-TA-NINS ENTI KHU
COMMODUS ANTONINUS.

AUTOCRATOR CÆSAR

SĀURIS ENTI KHU,
SEVERUS.

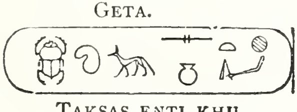
AUTOCRATOR CÆSAR

ĀNTANENES ENT KHU.
ANTONINUS [CARACALLA].

AUTOCRATOR CÆSAR

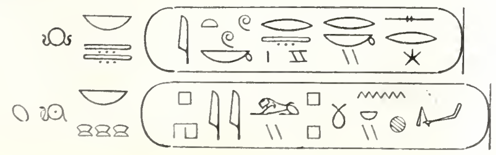
ḲĀT ENTI KHU.
GETA.

AUTOCRATOR CÆSAR



TAKSAS ENTI KHU.
DECIUS.

The latest Roman Emperor whose names are found in hieroglyphics is Marcus Julius Philip, who reigned A.D. 244–249. His names are found in the Temple at Asnâ under the following forms :—



10. Egyptian Chronology and a Sketch of the History of Egypt from the Pre-Dynastic Period to A.D. 1921.

Egyptian Chronology.—This subject is one of peculiar difficulty, and it must remain so until more material for fixing data is obtained. We need a complete list of kings, and to know both the order of their succession and the length of their reigns. But we only know the names of some of the kings, for the Palermo Stone, and the Latin Papyrus, and the tablets of Ṣaḳḳârah and Abydos, and other documents only give selections. Manetho, who lived in the third century B.C., compiled a list of Dynasties, giving the names of all the kings of Egypt, and the lengths of their reigns, but his original work is lost, and we possess only copies of it, made by Julius Africanus, Eusebius of Cæsarea, and George the Monk, several hundreds of years later. One copy of his King List makes 561 kings reign over Egypt in 5,524 years, while another gives the number of the kings as 361, and the length of their total reigns as 4,480 or 4,780 years. Speaking generally, it may be said that the period of dynastic civilization in Egypt lasted between 4,000 and 5,000 years. Manetho reckoned 30 Dynasties, but he does not tell us when the first Dynasty began to reign. Some authorities have tried to date the beginning of Egyptian History by the use of the Sothic Period of 1,460 Sothic years,* but others reject their conclusions. Birch, Brugsch, and Maspero agreed that dynastic civilization lasted for about 4,000 years, and facts substantially support this view. But it must be remembered that every system of Egyptian Chronology now formulated can only be correct for the period *after* B.C. 1,500, and that the portion of it that deals with the period *before* B.C. 1,500 can only be approximately correct, and that in many cases the dates given are the result of pure guesswork. Brugsch made Menes, the first dynastic king of Egypt, to begin to reign B.C. 4400, but later scholars reduce this date to B.C. 3315, though there is no satisfactory evidence to support this reduction. We do not possess all the data necessary for constructing a complete and correct scheme of Egyptian Chronology, and therefore one cannot be constructed.

The **history of Egypt** from the earliest times to the present

* 1,460 Sothic Years = 1,461 vague years, or 1 Sothic Period.

day must for convenience of treatment be divided into a series of Periods, for we have to consider briefly the Egyptians in the Pre-Dynastic and Archaic Periods, under the Dynasties of Pharaohs, and under the Persians, Macedonians, Romans, Arabs, and Turks.

I.—THE PRE-DYNASTIC AND ARCHAIC PERIODS.

Until comparatively recently all historians were compelled to begin their accounts of Egypt with the reign of Menȧ, or Menes, the first historical king of Egypt; but, thanks to the results of the excavations which have been made in Upper Egypt, more especially at Naḳâdah, near Thebes, and in the neighbourhood of Abydos, a considerable number of new facts concerning the pre-dynastic inhabitants of Egypt have been ascertained. We now know that for a very long period before the reign of Menȧ the Nile Valley was occupied by a population which lived chiefly by pastoral pursuits, fishing, hunting, etc. Of their relations with the rest of the world we know nothing, but it is most probable that they confined themselves to their own country, from which, on account of its natural position, it must always have been difficult to wander far. Their tools and implements were made of flint, they wore skins, they lived in rectangular mud houses or huts in the winter, and in the open, behind reed fences, in the warmer weather. At first they had no religious belief, but as their intelligence grew they believed in spirits, and in later times in one supreme spirit or god. In many respects they resembled the tribes now living a little to the north of the Equator, especially in their manners and customs. They had not the art of writing, and therefore could not read. They possessed great skill in making earthenware vessels, but the potter's wheel was unknown to them. Their burial customs were of a primitive kind, but they undoubtedly believed in a future life of a very material character; they maintained men who were magicians by profession, or "medicine men," and several of their magical customs descended uninterruptedly to their highly civilized posterity. As among all primitive peoples, fighting for the sake of loot, or water, or cattle, or women, was general, and the country contained a large number of petty chiefs; in process of time certain chiefs were able to add largely to their lands, and became kings of districts in consequence. These kings

had their territories between Behen, or Wâdî Ḥalfah, and the Mediterranean Sea, and the most powerful of them were the over-lords of the best ground for pasturing cattle, which began near Thebes, the modern Luxor, and extended northwards. Gradually all the districts which lay between Behen and the bifurcation of the Nile were regarded as forming one country, and the Delta, or all the land bounded by the two great arms of the river, as another.

These two countries have always constituted Egypt, and the oldest name for the country in the inscriptions is "The two lands" . The physique of the inhabitants of each of these great divisions has always differed considerably, as likewise have their manners and customs; the presence of the mountains and deserts has greatly influenced the minds and bodies of the dwellers in the Nile Valley proper, and the sea and the neighbouring seafaring peoples have had a permanent effect upon the people of the Delta. When the Egyptians had learned to write, they represented the southern division of Egypt by the reed plant, , or by , and the northern division by the lotus plant, , or by the hornet or wasp, ; therefore, or represented the whole country of Egypt. In very early times the king of the southern division wore the "white crown," , and the king of the northern division the "red crown," . As the various chiefs of the different districts of each of these two great divisions were always fighting for supremacy before they were compelled to recognize the sovereignty of the over-lord of each division, so at a very early period the over-lord of the south and the over-lord of the north contended for the mastery of the whole country. Sometimes one was victorious, and sometimes the other, but it seems that neither was able to maintain supreme rule for very long. Whilst matters were thus Egypt was invaded by foreigners from the south-east, who conquered the country, and introduced into it many important characteristics of their own civilization, which was of a far higher character than that of the Egyptians. Under the

influence of the newcomers Egypt became an agricultural country, and the manners and customs, beliefs, and social condition of the people were greatly modified, at least so far as the upper classes were concerned. The lands on each side of the river were ploughed and sown with grain, experience taught the people a system of irrigation, and the knowledge and the art of brick-making, which were introduced by the foreigner, enabled the native to build better houses for himself and his gods. From a dabbler in mud he became a hewer in stone, and his power of work and infinite patience enabled him to carry out the ideas of his more civilized conqueror, who seems to have allowed the people to keep their old beliefs and to follow their old ways, provided they acknowledged his supremacy. This state of things lasted for a considerable time, but at length a king arose who was able to make and to keep himself the master of the two great divisions of Egypt, **the South and the North**, and so it came to pass that Egypt became one country, under one ruler, who called himself **Smai Taui**, *i.e.*, "Uniter of the Two Lands," "lord of the land of the reed, and lord of the land of the hornet (or wasp)," and as the symbol of his absolute supremacy he wore the White and the Red Crowns united, thus . As king of the two great ecclesiastical divisions of the country he styled himself **Nebti** , *i.e.*, "lord of the shrine of Nekhebet (in the south), and lord of the shrine of Uatchet" (in the north). In later days we know that kings cut on their thrones the design , which signified "uniter of the land of the papyrus and the land of the lotus." When the first "uniter of the two lands" ascended the throne of Egypt the Pre-Dynastic Period ended.

As we have already said in the chapter on "The Learning of the Egyptians," the Egyptians made no attempt to write a consecutive history of their kings, but we know that they kept lists of them, and it seems that they grouped them according to their native cities. This fact is proved by the list of kings which was compiled by Manetho the priest in the 3rd century before Christ. According to the copies of this list which have been preserved in the works of later writers, Manetho divided the kings of Egypt into 30 dynasties, and as he probably had

very good authority for so doing, this division is adopted here. The Ancient Empire is generally said to contain 11 dynasties, the Middle Empire 8 dynasties, and the New Empire 11 dynasties.

II.—DYNASTIC PERIOD.

ANCIENT EMPIRE.

First Dynasty. From This, 4400 B.C.

The first "uniter of the two lands" was **Menȧ,** whom the Greeks called Menes. He is said to have founded the city of Memphis, which lay on the west bank of the Nile, a few miles south of Cairo. He has been identified with a king whose Horus name was **Āḥa** [hieroglyphs], and whose tomb has been thoroughly excavated at Naḳâdah, near Thebes. The fifth king of this dynasty was **Ḥesepti,** or **Semti,** [hieroglyphs], in whose reign important events in connection with the religion of Egypt took place. Semti was a worshipper of Osiris, and the rubric to one version of the LXIVth Chapter of the *Book of the Dead* declares that the chapter was "found," *i.e.*, rewritten or revised, in his reign. His name was formerly read "Ḥesepti," and even now the modern reading "Semti" is considered by some experts to be doubtful.

Second Dynasty. From This, 4133 B.C.

In the reign of **Kakau** a sanctuary of the **Apis Bull** was founded at Memphis, and a sanctuary of the **Mnevis Bull** was founded at Ȧnu, or Heliopolis, the **On and Aven** of the Bible (Genesis xli, 45, 50; Ezekiel xxx, 17). Of priests of **Senṭ,** another king of this dynasty, monuments are preserved in Cairo, the British Museum, and Oxford.

Third Dynasty. From Memphis, 3966 B.C.

The most important king of this dynasty was **Tcheser,** who built the famous **Step Pyramid at Ṣaḳḳârah**; a tomb of this king was discovered by Prof. Garstang at Bêt Khallâf in 1901. Under this dynasty the nobles built solid, rectangular tombs, to which the name maṣṭabah has been given. The glazed tiles from the pyramid of Tcheser prove that the Egyptians of this period were skilled in making faïence.

and the tombs show that the arts of the mason and builder were well understood, and that the cult of dead ancestors had been systematized, and had reached a very advanced state. A legend cut on a rock on the Island of Sâḥal in the First Cataract states that in the reign of this king there was a **seven years' famine** in Egypt. According to this the people had neglected the temple of Khnemu, the god of the First Cataract, and had failed to bring the proper supply of offerings to him. Therefore he caused Ḥep, the Nile-god, to withhold the Nile-flood for seven successive years, and the "famine was sore in the land." Tcheser undertook to re-endow the temple of Khnemu, and as soon as this was done the Nile-flood appeared as usual, from out of the two "Qerti," or "Caverns," through which it flowed from heaven into Egypt.

Fourth Dynasty. From Memphis, 3733 B.C.

Under this dynasty the **Pyramids of Gîzah,** which were reckoned among the Seven Wonders of the World, were built. The first king of the dynasty was **Seneferu,** the builder of the Pyramid of Mêdûm, and of a pyramid at Dahshûr ; he made an **expedition into the Sûdân,** or Land of the Blacks, and brought back 7,000 prisoners, *i.e.*, slaves, and 200,000 animals. This is the oldest example of slave raiding in the Sûdân on record. Khufu, or **Cheops,** built the Great Pyramid ; Khāfrā, or **Khephren,** built the second pyramid at Gîzah ; and Menkaurā, or **Mycerinus,** built the third pyramid at Gîzah. During the reign of the last-named king a further revision of certain chapters of the *Book of the Dead* took place ; fragments of his body and a portion of his coffin are in the British Museum. Under this dynasty the copper mines of Sinai were worked again. An inscription of the XVIIIth dynasty mentions the **Sphinx** in connection with Khufu, and it therefore seems as if this wonderful monument was in existence under the IVth dynasty.

Fifth Dynasty. From Elephantine, 3566 B.C.

Saḥu-Rā and Rā-en-user each built a pyramid at Abuṣîr, and **Unás** built at Ṣakkârah a pyramid, with corridors that attached it to an older funereal edifice, on the inside of which are long and important religious inscriptions. They are of Heliopolitan origin and are the oldest religious texts known in Egypt, and throw much light on the beliefs of the

early Dynastic Egyptians. They subsequently became the foundation of the great Theban funerary work which was known as the "Chapters of coming forth by (or, from) day," and is now commonly called the **Book of the Dead.** The statues, reliefs, and painting exhibit under this dynasty a beauty and fidelity to nature never before reached by the artist and sculptor, but with the end of the dynasty art, in all its branches, began to decline. About this time the cult of Rā assumed a very prominent place in the worship of the Egyptians, and the kings of the Vth dynasty were the first to add the title "Sa Rā," *i.e.*, "son of Rā," [hieroglyph], to their other names.

Sixth Dynasty. From Memphis, 3300 B.C.

The four greatest kings of this dynasty, **Tetȧ, Pepi I, Pepi II,** and **Mer-en-Rā,** each built a pyramid at Ṣaḳḳârah; the walls of the corridors and chambers inside them are covered with religious inscriptions, similar to those in the pyramid of Unȧs; the latest pyramid is less well built than the others, and the workmanship suggests want of resources and unsettled times. In this period Unȧ, a high official, was sent into Nubia on two or three trading missions. Ḥer-Khuf, the son of the Governor of Abu, or Elephantine, also made several expeditions, chiefly for trading purposes, into the Sûdân. On one of these he emulated the exploits of the official Ba-ur-ṭeṭ, who flourished during the reign of Ȧssȧ, and brought back from the Southern Sûdân a pygmy, which he subsequently, by the orders of Pepi II, sent to the Court at Memphis. Ḥer-Khuf caused a copy of the king's letter to him to be cut upon a slab in his tomb; this slab is now in the Egyptian Museum in Cairo. In some respects Egypt, under the VIth dynasty, was in a flourishing condition.

Seventh Dynasty. From Memphis, 3100 B.C.

Eighth Dynasty. From Memphis, . . . B.C.

So far as we know, the kings of these dynasties did nothing to improve the condition of the country, and they carried out neither wars nor works. Under their rule the governors of the districts near Herakleopolis succeeded in gaining their independence, and they became the ancestors of two dynasties of kings who ruled Egypt from this place. Monuments of some of the kings of this dynasty have been recently discovered at Coptos.

Ninth Dynasty. From Herakleopolis, . . . B.C.

Tenth Dynasty. From Herakleopolis, . . . B.C.

The best-known kings of this period are **Khati I,** who is commemorated by an inscription in the First Cataract, where he worked the quarries, and **Ka=meri=Rā,** in whose reign Khati, a prince of Asyûṭ, lived. Khati I, and his son, **Tefabȧ,** and his grandson, **Khati II,** sent men to fight against the princes of the South, who were making war on the Herakleopolitan kings, and defeated them. The Xth dynasty came to an end amid strife and civil war; with the downfall of the kings of Herakleopolis the period known as the Ancient Empire really came to an end.

Eleventh Dynasty. From Thebes, . . . B.C.

The order of the succession of the kings at this time is doubtful. The first Theban prince who became king was **Ȧntef,** who bore the titles of **Erpā** and **Ḥa**. Following him came, but in uncertain order, **Menthu=ḥetep,** whose Horus name was **Sānkh=ȧb=taui,** father of **Ȧntef=āa Nekht=neb=tep=nefer,** and grandfather of **Ȧntef=āa,** whose Horus name was **Uaḥ=ānkh ; Ȧntef=āa,** whose Horus name was **Nekht=neb=tep=nefer,** ; **Ȧntef=āa,** whose Horus name was **Uaḥ=ānkh,** ; **Menthu=ḥetep,** whose Horus name was **Neb=taui,** who worked the mines in the Wâdî Ḥammâmât ; **Menthu=ḥetep,** whose Horus name was **Sma=taui,** and his prenomen **Neb=ḥep=Rā,** who worked the quarries in the First Cataract, at Gabalên, and in the Wâdî Ḥammâmât ; and who built a temple at Dêr al-Baḥarî and a pyramid tomb in connection with his temple. The whole of Upper Egypt and Northern Nubia acknowledged the rule of this king. He had a son called **Ȧntef.** In the reign of **Menthu=ḥetep,** whose Horus name was **Sānkh=taui=f,** and whose prenomen was **Sānkh=ka=Rā,** the official Ḥennu made an **expedition to Punt,** a region to the south of the Red Sea, which included a part of the coast of North-east Africa, and brought back stone for the statues of the gods, and products of every kind. Five (?) kings who bore the name of Ȧntef-āa are known. The coffins of two

are in the Louvre, the coffin of a third is in the British Museum, and the tomb of another, with its two obelisks, was discovered by Mariette at Thebes. These probably belong to a later period; the XVIIth dynasty (?).

MIDDLE EMPIRE.

Twelfth Dynasty. From Thebes, 2466 B.C.

Åmenemḥat I fought against the Nubians, and vanquished the Uaua, a people who lived near Korosko; he built a pyramid near the modern village of Lisht, about 30 miles south of Cairo. **Usertsen I** continued his father's wars in Nubia. He set up granite obelisks at Heliopolis, and built or rebuilt temples there; his pyramid is also at Lisht. The pyramids of Åmenemḥat I and Usertsen I were excavated by the Mission sent out by the Metropolitan Museum of New York. **Åmenemḥat II** worked the turquoise mines of Sinai and the gold mines of Nubia, and sent an expedition to Punt; he built a pyramid at Dahshûr, of which comparatively little remains. **Usertsen II** is famous as the builder of the pyramid at Illahûn, which was opened by Mr. G. W. Fraser. **Usertsen III** invaded Nubia and conquered it, and built strong forts near Wâdî Ḥalfah, Samnah, and other places. He made a decree wherein he prohibited the Blacks from passing the Cataract at Samnah and Kummah without special permission. He built a strong fortress at the head of the Third Cataract, near the modern Karmah, and one of his viceroys was the famous warrior Ḥep-tchefa, who died in the Sûdân, and was buried there. He has, like Usertsen II, been identified with the **Sesostris** of the Greeks. His pyramid at Dahshûr was excavated by M. J. de Morgan in 1894. **Åmenemḥat III** was the greatest king of the XIIth dynasty. He devoted himself to the improvement of the irrigation of Egypt. He built forts at Samnah and Kummah in Nubia, he registered the height of the Nile flood in different years, and he built the **Labyrinth** and the Pyramid of Ḥawârah. Recent investigations have shown that the famous **Lake Moeris**, which is described so minutely by Herodotus, Pliny, and others, and is said to have been built by Åmenemḥat III, never existed. Major Sir H. Brown and Prof. Maspero declared that what Herodotus saw was not a great reservoir, but the waters of the inundation,

and that the earthworks which he regarded as the sides of the lake were nothing more than the roads which separated one basin from another! Similarly, the Labyrinth was not the great temple which Herodotus thought, but merely the town which Åmenemḥat founded in connection with his pyramid! A number of remarkable sphinxes, which were found by Mariette at Ṣân (Tanis) have been usually attributed to the Hyksos, but there is good reason for assigning them to the reign of Åmenemḥat III, who probably had them made. Some think that the headdress of the Sphinx at Gîzah was added during the reign of this king. **Åmenemḥat IV** and his sister **Sebek-neferu-Rā** were the last rulers of the XIIth dynasty. Under the XIIth dynasty literature flourished, and there was great prosperity in Egypt.

Thirteenth Dynasty. From Thebes, . . . B.C.

The number and order of the kings of this dynasty are uncertain, and it is probable that the whole country was in a state of confusion for many years after the death of Åmenemḥat III. The principal kings of whom monuments are known are:—**Rā-sekhem-ka,** a series of kings each of whom bore the name of **Sebek-ḥetep, Nefer-ḥetep,** and **Ab-āā.** There is a statue of **Khu-taui-Rā** at Kharṭûm.

Fourteenth Dynasty. From Xoïs, . . . B.C.

The principal kings of this dynasty were **Anȧb, Sebek-em-sa-f,** and **Sebek-em-sau-f;** they came from Xoïs, a city in the Delta, and probably reigned whilst the kings of the XIIIth dynasty ruled at Thebes. At all events, it is certain that many of the kings of the XIIIth and XIVth dynasties must have been contemporaneous. None of them can have had any extensive power in the country, and very few of them have left monuments behind them.

Fifteenth and Sixteenth Dynasties. [Hyksos. From Avaris?] . . . B.C.

During the feeble rule of the kings of Thebes and Xoïs a considerable number of Semitic settlers took up their abode in the Delta, and as the people of the country, who were probably their kinsfolk, made common cause with them, they watched

their opportunity and seized the land and set up their king. It seems, too, that the Hyksos established themselves in the Donkola Province of the Sûdân, after the downfall of the kings of the XIIth dynasty, for remains of their pottery and scarabs have been found at Dafûfah near the head of the Third Cataract. The settlers were called by Manetho "**Hyksos,**" a name which is usually translated by "**Shepherd Kings,**" and they no doubt were the Ḥequ-Shasu [hieroglyphs], *i.e.*, the *shêkhs*, or rulers of the tribes which lived in the north-east of the Delta, and in the deserts east of Egypt, and in Syria. The chief city of the Hyksos was **Avaris,** and their great god was called Set. It must be remembered that although the Hyksos were masters of the Delta and other parts of Lower Egypt for a considerable period, they had little effective authority in Upper Egypt. The kingdom of the South, which presumably had its capital at Thebes, continued to be ruled by Egyptian kings, but of these nothing is known. The Hyksos kings of whom monuments remain are **Ȧpepȧ I, Ȧpepȧ II, Nubti,** and **Khian.** The last-named king has been thought by some to belong to the period of the Herakleopolitan princes, but there is little doubt that he was a Hyksos king; his prenomen is found on a stone lion which was obtained by Mr. George Smith in Baghdad, and which is now in the British Museum, and on a jar lid discovered by Sir A. J. Evans in the course of his excavations in Crete.

Seventeenth Dynasty. From Thebes [1800 B.C. ?].

At some period during the rule of the Hyksos kings in the Delta there probably reigned at Thebes a group of kings who bore the names of **Ȧntef** and **Ȧntef-āa.** The reason for assigning their reigns to this period is derived from the character of the monuments which they have left behind them, and these suggest that they were made some time between the XIIth and XVIIth dynasties. The royal prenomens by their forms also suggest a period much later than the XIth dynasty to which it has been usual to assign them. The Theban kings who reigned after the Ȧntefs, and who certainly belong to the XVIIth dynasty, are **Seqenen-Rā I, Seqenen-Rā II, Seqenen-Rā III,** and **Ka-mes.** The first three of these appear to have engaged in wars against

the Hyksos kings in the Delta, and Seqenen-Rā III probably lost his life in battle against one of them. His mummy, which shows that he must have died from wounds received in some hand-to-hand fight, is preserved in the Egyptian Museum in Cairo. **Kames** was probably the son of Seqenen-Rā III, and the husband of **Queen Ȧāḥ-ḥetep,** in whose coffin were found large quantities of jewellery, a bronze spear-head inlaid in gold with the names and titles of Kames, bronze axe-heads, a gold and a silver boat, each provided with a crew of rowers, etc. Other royal personages of this period are **Senekht-en-Rā** and **Ȧāḥmes-sa-pa-ȧri.**

Eighteenth Dynasty. From Thebes, 1600 B.C.

Ȧāḥmes I (Amasis) **attacked the Hyksos,** captured their capital city Avaris, and drove them out of Egypt; he next invaded Nubia and conquered it. The expulsion of the Hyksos has been confounded with the exodus of the Israelites from Egypt, but they are two different historical events. **Ȧmen-ḥetep I** (Amenophis) built or rebuilt sanctuaries at Karnak and Dêr al-Baḥarî, and carried on wars in Nubia; he was a devotee of Ȧmen, the local god of Thebes, and was the founder of the great brotherhood of the priests of Amen. On many coffins of priests the deceased ecclesiastics are depicted in the act of worshipping his name, and in pouring out libations before his cartouches; all the kings of the XVIIIth dynasty save one were devotees of Ȧmen, but Ȧmen-ḥetep I must have been a special patron of the priests. **Teḥuti-mes I** (Thothmes) continued the war in Nubia, and carried his victorious arms so far south as the foot of the Fourth Cataract. He also made conquests in Northern Syria, and he enriched the temple of Ȧmen with spoil therefrom, set up two obelisks at Karnak, and built sanctuaries in Nubia. He was the first king to build a tomb in the Valley of the Tombs of the Kings at Thebes; this tomb was excavated by M. V. Loret in 1899. **Thothmes II,** the son of Thothmes I and Queen Mut-nefert, carried on wars in Nubia, and in the deserts to the east and north-east of Egypt. He married his half-sister **Ḥatshepsut,** daughter of Thothmes I and Queen Ȧāḥmes, the daughter of Amen-ḥetep I. Ḥatshepsut reigned alone after the death of Thothmes II, and sent an expedition to Punt, and built the great temple of Dêr al-Baḥarî, which she called TCHESER-TCHESERU, "the Holy of Holies." Her architect

was Sen-Mut. Her tomb was discovered by Messrs. Davis and Carter in 1904, but her body has not yet been found. **Thothmes III** was the son of Thothmes II and Aset, a lady who could not claim Royal descent, and reigned conjointly with his aunt Ḥatshepsut for some years. When he became sole ruler of Egypt he devoted his energies to building up an Egyptian Empire in Western Asia. He advanced so far as the Euphrates, and, as the result of numerous expeditions to Syria and Palestine, brought back large quantities of tribute and spoil and greatly enriched the treasury of Åmen. He was probably the greatest king who ever reigned in Egypt. The **tomb of Thothmes III** is very remarkable and is exceedingly interesting; the main chamber is oval in shape and is intended to represent the Ṭuat, or "Other World." It is difficult of access, but should certainly be visited by those who are specially interested in Egyptian religion. **Åmen-ḥetep II** waged wars in Syria, and slew seven chiefs with his own hand; on his way to Thebes he hung their bodies head downwards on the bows of his boat. One of these he sent to Napata in Nubia (Gabal Barkal) to strike terror into the hearts of the Nubians. Two statues of this king were found at Wâd Bâ Nagaa, about 20 miles south of Shendî, a fact which may prove that the authority of Åmen-ḥetep extended to the south of the Island of Meroë. **Thothmes IV** made a victorious expedition into Phœnicia, and another into Nubia, which he declared the great god of the country, Ṭeṭun, had delivered into his hands. His tomb was discovered and excavated by Mr. Theodore M. Davis, and was officially opened on February 3rd, 1903. One of the most interesting works of Thothmes IV was the excavation of the Sphinx, which had become buried by drifting sands. **Åmen-ḥetep III**, called **Memnon** by the Greeks, warred successfully in Nubia and Asia, and extended the frontiers of Egypt considerably. He hunted lions in Mesopotamia, and in the course of his shooting expeditions he married one, if not two, of the daughters of Kallimma-Sin (*or* Kadashman Bêl), King of Babylonia, and a daughter of Shutarna, King of Mitani, and a daughter and a sister of Tushratta, King of Mitani. Tushratta's sister was called Gilkipa. His best beloved wife, however, was **Ti**, "Queen of Egypt," who became the mother of Åmen-ḥetep IV. The temple of Sad-dênga in Nubia was built by Åmen-ḥetep III in her honour. The tomb of Iuåa, the father, and of Thuåu, the mother of Ti, was discovered by Mr. Theodore M. Davis on Sunday,

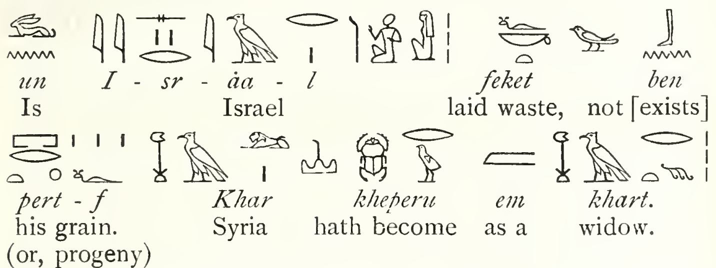
February 12th, 1905. In it he found the mummies of the great queen's parents, and complete suites of funeral furniture of a most interesting character. The tomb was literally filled with objects, and everything of importance was heavily plated with gold. Included in the find was a chariot. As soon as possible the contents of the tomb were taken to the Museum at Cairo, where they are now exhibited in the Egyptian Museum. A few years ago a mummy was discovered at Thebes by Mr. Davis which was believed for a time to be that of the great queen Ti, and it was confidently asserted, after a careful examination of this mummy had been made, that Ti was an Egyptian woman, and that the theories which had been put forth suggesting that she was of Asiatic extraction were flatly contradicted by the evidence of the physical characteristics of the mummified body. Shortly after this pronouncement had been made the mummy which had been declared to be that of Ti was examined very carefully by Dr. Elliot Smith, who declared that it was that of a man, and gave irrefutable physical reasons why it must be the MUMMY OF A MAN! As the physiognomy of Iuåa, the father of Ti, is non-Egyptian, we may still hold the view that the great queen was of foreign extraction. The correspondence which passed between Åmen-ḥetep III and his son, and the kings of Karaduniyash (Babylonia) and Mitani, and the governors of towns in Syria and Phœnicia, and independent shêkhs, written in cuneiform characters, was found at Tall al-'Amârnah in 1887, and large sections of it are preserved in the Egyptian Museum in Cairo, the British Museum, and Berlin. **Åmen-ḥetep IV** was a determined opponent of the god Åmen and his priests, and he endeavoured to overthrow them and their god. He wished to revive and extend the cult of Åten, and to introduce a religion of a monotheistic character; as a mark of his own "divine mission" he called himself **"Åakhu-en-Åten,"** *i.e.*, the "spirit of Åten." The strife between himself and the priests assumed such serious proportions that he was obliged to leave Thebes and to found a new capital on a site near the modern **Tall al-'Amârnah.** Here he established the cult of Åten, made himself high priest, and passed his time in religious and social pursuits instead of attending to the business of his Empire, which was breaking up. At his death the cult of Åten declined, and the new capital was forsaken, and within a few years was deserted. Åmen-ḥetep IV had several daughters, some of whom married

worshippers of Åmen, and so renounced the religion of their father. The other kings of the XVIIIth dynasty were **Tut-ānkh-Åmen**, who married a daughter of Åmen-ḥetep IV; **Åi**, who married a royal personage, and **Ḥeru-em-ḥeb**, who was probably a scion of the royal family of Thebes; he owed his accession to the throne to the influence of the priests of Åmen. Ḥeru-em-ḥeb destroyed the shrine of Åten set up in Thebes by Åmen-ḥetep IV, and restored the temple of Åmen at Karnak. He warred in Nubia, and sent expeditions into Palestine and Punt.

Nineteenth Dynasty. From Thebes, 1370 B.C.

Rameses I invaded Nubia, and chastised the tribes there; in his reign the Kheta challenged with success the supremacy of Egypt in Western Asia. **Seti I** carried on wars against the peoples of Syria and Palestine, and claimed to be master of Cyprus, and of Western Asia as far as the Euphrates. He established water stations in the eastern desert, and is said to have made a canal from the Nile to the Red Sea. He built largely at Thebes and Abydos, and had made the finest of all the rock-hewn tombs in the Valley of the Tombs of the Kings. He built a temple on the west bank of the Nile, near the modern town of Dulgo, about 160 miles south of Wâdî Ḥalfah, probably in connection with the gold trade. His mummy and coffin are in Cairo, and his large funeral portrait figure and his magnificent alabaster sarcophagus are in London, the former in the British Museum, and the latter in Sir John Soane's Museum. **Rameses II** carried on wars in Nubia, Libya, Palestine, and Syria, and the material prosperity of Egypt in his reign was very great. He marched into Northern Syria with the view of crushing the power of the Kheta; a fierce battle was fought at Kadesh on the Orontes, and the Egyptians were victorious, but it cost them dear, and ultimately Rameses II was obliged to sign the treaty of Tanis, which practically declared the independence of the Kheta, and admitted their right to Northern Syria so far south as the Dog River near Bêrût. Rameses II was a great builder. He set up temples in all the great cities of Egypt, but more especially in Abydos and Thebes. The rock-hewn temple of Abû Simbel was made to record his victory over the Kheta, of which he was very proud, and to terrify the Nubians, and so

prevent open revolts in the country. Rameses II usurped many statues and buildings which he had not made. He is famous as one of the oppressors of the Israelites. **Mer=en=Ptaḥ** (Meneptah) suppressed the revolt of the Libyans which broke out in the fifth year of his reign; his "Hymn of Triumph" is cut on the back of a large stele* of Åmen-ḥetep III, which is now in the Egyptian Museum in Cairo. On this stele the name "Israelites" is found, its actual form and context being as follows:—



The word *pert* here probably means "grain," and refers to the crops which were destroyed by an enemy when he laid waste his foe's country; there is a play of words on the name of "Syria" (*Khar*) and the word for "widow" (*khart*). Meneptah is thought by many to have been the **Pharaoh of the Exodus.** His mummy was found in the tomb of Åmen-ḥetep II at Thebes.

Other kings of the XIXth dynasty are **Åmen=Meses, Seti II, Mer=en=Ptaḥ,** and **Sa=Ptaḥ.** The tomb of Sa-Ptaḥ was excavated by Mr. Theòdore Davis in 1906.

* In connection with this stele it is often asked whether the name of "Moses" is found in the Egyptian inscriptions. The name MESU, which is probably the equivalent of "Moses," occurs on Ostrakon No. 5631 in the British Museum. The exact words are, "Mesu said unto me, 'Come, I pray thee, open the pot.'"

àu *Mesu* *tchet-na* *àmma* *un* *ta*

tchatchaàu.

The name *Mesuàa* also, , is found on a papyrus at Berlin.

NEW EMPIRE.

Twentieth Dynasty. From Thebes, 1200 B.C.

After the XIXth dynasty came to an end, conflict broke out between **Setnekht**, the Egyptian who claimed the throne, and **Årsu**, [hieroglyphs], a Syrian, but at length the former became conqueror and the first king of the XXth dynasty. He was succeeded by ten kings, each of whom bore the name of Rameses, and the greatest of these was **Rameses III**, in whose reign Egypt attained to a very high state of commercial prosperity. He devoted his attention to **providing Egypt with a navy**, and thus he was able to crush a confederation of enemies who attacked the Delta by sea and by land. The spoil which he obtained was enormous, and he devoted large portions of it to the sanctuaries of Heliopolis, Abydos, and Thebes. A list of his donations to the temples, and summaries of his wars and extensive building operations, are contained in the great papyrus No. 9999, 133 feet long, preserved in the British Museum. His mummy is in Cairo, and the cover of his granite sarcophagus is at Cambridge. In the reign of Rameses III Egypt first appears as a sea power. His successors, **Rameses IV-XII**, were weak kings, and permitted the priests of Åmen to acquire such vast temporal power that at length they administered the finances of the kingdom, and imposed and collected taxes. The most masterful of the high priests of Åmen, Ḥer-Ḥeru, usurped the throne on the death of Rameses XII, and adopted the rank and titles of the old Pharaohs.

Twenty-first Dynasty. 1100 B.C.

Egypt was now ruled by two dynasties: Upper Egypt by a dynasty of priest-kings at Thebes, and Lower Egypt by a dynasty of kings at Tanis. These kings were:—

I.—*Tanis.*	II.—*Thebes.*
1. **Nes-ba-neb-Ṭeṭṭeṭ.**	1. **Ḥer-Ḥeru.**
2. **Pasebkhānut I.**	2. **Paiānkh.**
3. **Åmen-em-åpt.**	3. **Painetchem I.**
4. **Sa-Åmen.**	4. **Painetchem II.**
5. **Pasebkhānut II.**	5. **Masaherth.**
	6. **Menkheper-Rā.**
	7. **Painetchem III.**

At this period Palestine and Syria asserted their independence, and, as the priests of Åmen devoted more time to their temples than to the affairs of the throne which they had usurped, the Nubian tribes ceased to pay tribute to Egypt.

Twenty-second Dynasty. From Bubastis, 966 B.C.

Buiuuaua, [hieroglyphs] a Libyan prince, was the great ancestor of the kings of this dynasty. He lived about 1150 B.C., and it is thought that some of his kinsfolk settled about this period at Napata, or Gabal Barkal, in the fertile lands near the foot of the Fourth Cataract. He and his descendants were warriors, and generals of the troops who were employed by the kings of Egypt. His descendant in the fourth generation was Shashanq, who married the high-priestess of Åmen, Meḥt-en-usekht; their son Nemareth married the Egyptian lady Thent-sepeḥ, and their son Shashanq became the first king of the XXIInd dynasty. **Shashanq I,** the Shishak of 1 Kings xiv, 25; 2 Chron. xii, 5, 7, 9, made an expedition against Rehoboam, King of Judah, with 1,200 chariots, 60,000 horsemen, and 400,000 footmen; he besieged Jerusalem and took it, and stripped the Temple, taking away the bucklers and shields of Solomon and the gold quivers of the King of Zobah, which David had taken from him and dedicated to God. Thus Palestine once more became an Egyptian possession. The successors of Shashanq I were **Osorkon I, Tekeleth I, Osorkon II, Shashanq II, Tekeleth II, Shashanq III, Pamåi, Shashanq IV.** Under the rule of these kings Egypt finally lost most of her foreign possessions, and the country lay open to the power of any strong foe.

Twenty-third Dynasty. From Tanis, 766 B.C.

The first king of this dynasty was **Paṭā-sa-Bast,** and he was succeeded by **Uasarkenå,** during whose reign **Kashta,** a Nubian, now said to be of Libyan descent from Buiuuaua, father of Piānkhi, was king of Thebes. In the reign of Uasarkenå the priests of Åmen fled from Thebes and settled at Napata, *i.e.*, Gabal Barkal, at the foot of the Fourth Cataract, in Nubia. Here they stirred up the Nubian king **Piānkhi,** who invaded Egypt and conquered it 721 B.C. The narrative of the conquest is told by Piānkhi on a

stele which he set up at Gabal Barkal, and is now in the Egyptian Museum in Cairo. An attempt to bar his progress was made by **Tafnekhtt,** King of Saïs, who appears to have laid claim to the sovereignty of the country, but he was defeated, and for the first time a Nubian was the actual king of all Egypt. It was reported, so the stele says, to Piānkhi, in the 21st year of his reign, that the governors of the northern towns had made a league together and had revolted against his authority. He set out for Egypt with his soldiers, and when he arrived at Thebes he made offerings to Amen-Rā, and commanded his soldiers to pay proper homage to the god. Passing northwards from Thebes he captured city after city, and finally besieged Memphis, which he soon captured, and thus made himself master of Egypt. The details of the capture of the towns, the speeches of the king and of his vassal princes, and the general information contained in the narrative, give this inscription an importance possessed by few others. Piānkhi was the founder of the first native Nubian kingdom, and made Napata his capital. He built a large temple at Gabal Barkal; it is now in ruins.

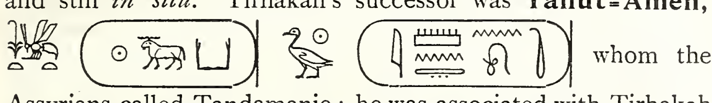
Twenty-fourth Dynasty. From Saïs, 733 B.C.

Bakenrenf (Bocchoris), the son of Tafnekhtt, reigned for six years, and was esteemed one of the six great lawgivers of Egypt.

Twenty-fifth Dynasty. From Nubia, 700 B.C.

Shabaka, the son of Kashta, burned Bocchoris alive; he has been identified with the **So** of 2 Kings xvii, 4, and was a contemporary of Sargon and Sennacherib, kings of Assyria. Shabaka was succeeded by **Shabataka,** in whose reign Sennacherib conquered Palestine, and appears to have attempted to invade Egypt. Shabataka was probably an ally of Hezekiah, King of Judah. **Taharqa,** the Tirhakah of 2 Kings xix, 9, was an ally of Hezekiah, King of Judah, and assisted in the overthrow of Sennacherib's army. In 676 Esarhaddon set out to crush the revolt in Palestine, and six years later he invaded Egypt, defeated Tirhakah, captured Memphis, and appointed 20 governors over the various provinces of the country. After the death of Esarhaddon in 668 Tirhakah returned and proclaimed himself king of Egypt at Memphis; but Ashur-bani-pal, the new king of Assyria, quickly marched against him and defeated his

forces, which were assembled at Karbaniti; Tirhakah fled, and Ashur-bani-pal marched into Egypt and reappointed the governors whom his father had appointed, and so crushed the rebellion. Taharqa built a temple at Samnah, immediately to the south of that of Thothmes III, and dedicated it to Usertsen III. This temple was discovered and excavated by Mr. J. W. Crowfoot and myself in 1905, and the objects found in it are now in the Museum at Kharṭûm. An interesting feature of the temple is the rectangular stone altar which is complete and still *in situ*. Tirhakah's successor was **Tanut-Åmen**,



whom the Assyrians called Tandamanie; he was associated with Tirhakah in ruling the Nubian kingdom. After Tirhakah's death, as the result of a dream Tanut-Åmen invaded Egypt, and made his way northwards to the city of Heliopolis, which he captured; he then tried to turn the Assyrians out of Memphis, but, as soon as he heard that relief was coming for them in the form of an army led by Ashur-bani-pal in person, he fled to Thebes. Thither he was pursued by the Assyrians, who captured the city and plundered it in characteristic fashion; Tanut-Åmen meanwhile fled to the city of Kipkipi, 662–1 B.C., and Ashur-bani-pal returned to Nineveh with a "full hand." It is uncertain how long the rule of the Assyrian governors in Egypt was maintained, but it can hardly have lasted for more than a few years, and 10 to 15 years will be ample to allow to the period during which the Assyrians held sway in Egypt.

Twenty-sixth Dynasty. From Saïs, 666 B.C.

Psemthek I (Psammetichus) married the high-priestess of Åmen called Shep-en-Åpt; he allowed Greeks to settle in the Delta, and employed Ionians and Carians to fight for him. He established garrisons of Greek mercenaries at Elephantine, Pelusium, Daphnæ (Dafannah), and Marea. During this reign the Māshuasha and other mercenaries deserted and marched in a body to the Sûdân, where they obtained a grant of land from the king and settled down. After this the Māshuasha no more appear in Egyptian history. They deserted because the king took no steps to relieve the garrisons. **Nekau** maintained a powerful army of Greeks and other peoples, and kept **a fleet of triremes** both in the Mediterranean Sea and in the Red Sea. He re-cut and enlarged the old

canal which united the Red Sea with the Nile, and employed 120,000 men in the work; but an oracle having declared that he was only toiling for the foreigner, he gave up the undertaking. Nekau, or Necho, made an expedition into Syria, and as Josiah, King of Judah, tried to stop his progress, he did battle against him in the Valley of Megiddo; an Egyptian arrow penetrated the armour of Josiah, and he was mortally wounded and died. Necho then advanced towards the Euphrates, being master of Syria and Palestine, but was met at Karkĕmish by the Babylonian army led by Nebuchadnezzar II, and was defeated. Palestine and Syria then became provinces of Babylonia. *See* 2 Kings xxiii, 29 *ff*; Jeremiah xlvi, 2. **Psammetichus II** is said to have engaged in war with the Nubians; his reign was short, but building operations were carried out by him on a considerable scale. **Uaḥ-ȧb-Rā**, the Pharaoh Hophra of the Bible (Jeremiah xliv, 30), and Apries of the Greeks, marched to the help of Zedekiah, King of Judah, who was defeated by Nebuchadnezzar II, King of Babylon. Owing to a mutiny among his soldiers, who suspected that Apries had planned their defeat, the troops made their general Amasis ruler of the country, and proclaimed him king. During the reign of Apries Egypt enjoyed a period of great prosperity, which was directly due to the encouragement he gave to commerce; about this time Naucratis became a great city. After the invasion of Palestine by Nebuchadnezzar II, Jeremiah and a number of Jews escaped to Egypt and settled in Tahpanhes (Jeremiah xliii, 7). **Amasis II** entered into friendly relations with the Greeks, and the development of Naucratis continued; he was forced to fight against his former master Apries, whom he defeated, but spared and treated in an honourable manner. Apries, however, raided the country, and one day, when the soldiers of Amasis found him sitting in a boat, they slew him. Amasis was a great and generous warrior, and an able commander, and under his care many of the old sanctuaries of Egypt were restored. **Psammetichus III.** In his reign the Persians marched against Egypt, and having defeated the Egyptians at Pelusium, they invaded the country and captured Memphis. Cambyses treated Psammetichus III with kindness, but as soon as he found him interfering in the affairs of the country he made him "to drink the blood of a bull, and he died immediately afterwards." Thus perished the last king of the XXVIth dynasty, and Egypt became a province of Persia.

Twenty-seventh Dynasty. From Persia, 527 B.C.

Cambyses marched against the Ethiopians (Nubians), and is said to have reached Meroë; the inscription of Nȧstasen appears to contain a mention of his overthrow. He sent a detachment of 50,000 men to march to the Oasis of Jupiter Ammon; they reached the Oasis of Khârgah, but they were never more heard of. Cambyses committed many foolish and sacrilegious acts in Egypt, and is said to have died from a sword wound in the thigh, which he inflicted upon himself accidentally. **Darius I.** Hystaspes adopted the rank and style of the kings of Egypt, had his name, transcribed into hieroglyphics, placed in a cartouche, and called himself "son of Rā"; he supported native religious institutions, and contributed a sum of money towards the discovery of a new Apis Bull. He completed the canal between the Nile and the Red Sea which Necho had begun, established a coinage, and favoured all attempts to promote the welfare of Egypt. He was tolerant, especially in the matter of religion, and his form of government was conciliatory. His greatest architectural work was the temple which he built in the Oasis Al-Khârgah in honour of the god Ȧmen; on the south-west wall of this temple is inscribed a most remarkable hymn in 50 lines. Four years after the battle of Marathon, the Egyptians under **Khabbesha** revolted against the Persians; Darius determined to set out from Persia to suppress the revolt, but died before he could do so. **Xerxes** suppressed the rebellion in Egypt: monuments of this king are not common, and there is no great work which can be mentioned as the product of his reign. **Artaxerxes I**, like Xerxes, neither repaired nor built a temple, although he assumed the titles of the Pharaohs. In his reign Inarôs, a Libyan, headed a revolt against the Persians, and obtained help from the Athenians; in the battle at Papremis the Persians were defeated, and **Akhaemenes**, the Satrap of Egypt, was killed. Subsequently a Persian army arrived, and in the battle which followed the Egyptians were defeated; **Inarôs** was taken to Persia, and at the end of five years was impaled and then flayed alive.

Darius II (Nothus) added his Egyptian name and titles to the walls of the temple of Darius I at Al-Khârgah Oasis, and carried out some works on the temple at Edfû. His successors were **Artaxerxes II** and **Artaxerxes III**, but

they had no influence on the destinies of Egypt. The greatest of all the Persian kings of Egypt was undoubtedly Darius I, who not only conquered Egypt, but pacified its people; he tried to understand the priests and their religion, and was so wise, just, and prudent, that he was regarded as one of the six great lawgivers of the country.

Twenty-eighth Dynasty. From Saïs, . . . B.C.

This dynasty consisted of a single king, **Åmen-ruṭ**, or **Amyrtaeus**, who cannot, however, be the Amyrtaeus who was the ally of Inarôs; his reign lasted six years.

Twenty-ninth Dynasty. From Mendes, 399 B.C.

The kings of this dynasty were:—

Naif-āaiu-ruṭ I (Nepherites).
Hager (Akhôris).
Peshamut (Psammuthis).
Naif-āaiu-ruṭ II (Nepherites).

The reigns of these kings were wholly unimportant, and the last of them only reigned four months.

Thirtieth Dynasty. From Sebennytus, 378 B.C.

Nekht Ḥeru-ḥebt, the Nektanebês of the Greeks, restored for a short time the independence of the Delta, and the times were sufficiently peaceful to allow him to build a temple to Horus near the modern village of Behbit al-Ḥajârah. He repaired many of the old temples of Egypt at Thebes and Memphis, and opposed the Persians at every opportunity. His claims to conquests outside Egypt are fictitious. **Tche-ḥrȧ,** the Teôs, or Tachos, of the classical writers, restored the temple of Khensu Nefer-ḥetep at Thebes, and worked the quarries near Memphis.

Nekht-neb-f, the Nektanebos of the Greeks, was a great warrior and a great builder. He built a vestibule at Philæ, he carried out repairs at Thebes, Memphis, and at many other places. With an army of 20,000 Greeks, 20,000 Libyans, and 60,000 Egyptians, he attempted to fight the Persians, but losing heart when he saw the successes of his enemy, he is said to have quietly abdicated his throne, and, taking much treasure with him, to have fled to Ethiopia. Thus ended the rule of the last native king of Egypt, and the country has been ordained to be the possession of the foreigner even until now. A

popular legend declared that Nectanebus fled to Macedon, where he became the father of Alexander the Great, to whose mother, Olympias, he appeared in the form of Amen of the two horns.

Persians.

Artaxerxes III (Ochus), Arses, and Darius III (Codomannus), 340–336 B.C.

III.—THE GREEK PERIOD.

Alexander the Great and the Ptolemies.

During the last three reigns the Egyptians were harassed by the Persian revenue officers, and their rule was both feared and hated, and they welcomed the successes of **Alexander** of Macedon, called **the Great.** About 332 B.C. Alexander arrived in Egypt, and spent some time in Memphis, where he seems to have been crowned. From Memphis he set out for the Oasis of Jupiter Ammon *viâ* Canopus, and the priests of Ȧmen received him gladly; in the temple of the Oasis Ȧmen was worshipped under an unusual form, and when Alexander had paid his vows to it, the god (or his priests) indicated by some movement that he regarded Alexander as his son. "Id quod pro deo colitur non eamdem effigiem habet quam "vulgo diis artifices accomodaverunt: umbilicus maxime "similis est habitus, smaragdus et gemmis coagmentatus" Quintus Curtius, IV, 7. Prof. Naville has suggested that the symbol of the god of the Oasis, made of an emerald and other precious stones, was fastened within the *umbilicus* (this word being used by Quintus Curtius as the equivalent of *umbo*, the "boss of a shield") of a shield-shaped object specially made to contain it. This object, M. Naville thinks resembled the green stone shield-shaped slabs, sculptured in relief with the figures of animals, etc., which have been found at Hierakonpolis and other very early sites. The object was placed in the shrine of the god, probably resting in a boat, and could easily be taken out and carried about in processions. The "palette" theory thus falls to the ground. Alexander **founded** the city of **Alexandria** near the old town of Rāqetit (Rakoti), and intended it to be a port for his ships; the city rapidly increased in size and numbers, and soon became the seaport capital of Egypt. **Alexander died** in June, 323, at Babylon, and was buried at Alexandria. In the scramble

for the provinces of the empire of Alexander which took place at his death, Egypt fell to the share of Ptolemy Lagus, and this brave warrior administered the country in the names of Alexander's sons, **Philip Arrhidaeus** and **Alexander II** of Egypt; the former never was in Egypt, and the latter went there when he was six years old, and was murdered (311 B.C.) when he was 13, but in spite of these facts Ptolemy caused buildings to be erected in their names, and ruled the country as their loyal servant.

Ptolemy I, Soter I, son of **Lagus** and Arsinoë, was born 367 B.C.; he married Artacama, daughter of Artabazos, in 324, and Thaïs in 323; he became **Satrap of Egypt in 323,** married Berenice I in 317, and assumed the title of **Soter in 304.** He abdicated in favour of his son in 285. He died 283–2 B.C. He founded the famous **Alexandrian Library** and encouraged Greeks to make Alexandria their home.

Ptolemy II, Philadelphus, was born about 304 B.C. He became king in **287** or 286, married Arsinoë I, daughter of Lysimachus of Thrace, in 285, and his sister Arsinoë II in 280, and died about 246. He built the **Pharos,** founded Berenice on the Red Sea, and Arsinoë in the Fayyûm, employed **Manetho** to write a history of Egypt in Greek, and caused the Greek version of the Old Testament **(Septuagint)** to be made.

Ptolemy III, Euergetes I, became co-regent in 267, married Berenice II about **246 B.C.,** his daughter Berenice died in 238, and he himself died at the end of 222. The **Stele of Canopus** was set up in the ninth year of his reign. This important stele, preserved in the Egyptian Museum in Cairo, is inscribed in hieroglyphics, Greek, and Demotic, with a decree of the priesthood which was promulgated at Canopus. It enumerates the benefits conferred on the priesthood, and the assistance which the king rendered to the people in times of famine; it refers to the death of Princess Berenice, and mentions the reform of the calendar which Ptolemy III tried to introduce. He wished to add one day to every fourth year, and so do away with the absurdity of celebrating summer festivals in the winter, and winter festivals in the summer. Ptolemy was a patron of art and literature, and he began to build the temple of Edfû. He made Eratosthenes keeper of the Alexandrian Library (he died 196), and is credited with having secured the original MSS. of the works of Æschylus, Euripides, and Sophocles for that institution.

Ptolemy IV, Philopator I, began to reign **221 B.C.**; he married his sister Arsinoë III in 217, and permitted her to be murdered between 209–205, and died in 205. He added a hall to the temple which **Ergamenes** built at Dakkah, and continued the work which his father had begun at Edfû. He defeated Antiochus the Great at the battle of Raphia. In his reign elephant hunts were organised, and numbers of elephants were brought to Egypt by sea from Abyssinia and employed in military service.

Ptolemy V, Epiphanes, was born 209 or 208 B.C., and was made joint ruler of Egypt with his father; in **205** he became king of Egypt, in 193 or 192 he married Cleopatra I, daughter of Antiochus III, and was poisoned in 181. During his reign Cœlesyria and Palestine were lost to Egypt, and revolts and rebellions were widespread and frequent. The **Rosetta Stone,** which is inscribed with a copy of the famous decree of the priests of Memphis, was set up in every temple of the first, second, and third classes in Egypt in the eighth or ninth year of his reign.

Ptolemy VI, Eupator, appears to have reigned with Ptolemy V for some years; he died the year in which he became sole ruler of Egypt.

Ptolemy VII, Philometor, was the son of Ptolemy V and Cleopatra I, and he was crowned king **173 B.C.** Two years later he was defeated by Antiochus IV at the battle of Pelusium, and the king of Syria, having taken Memphis, proclaimed himself king of Egypt. A brother of Ptolemy VII, known in history as Ptolemy IX, who had made himself master of Alexandria, also declared himself to be king of Egypt. Onias begged permission from Ptolemy VII to build an altar to the God of the Hebrews, and this being granted, **Onias built** the temple fortress of **Onion,** 180 furlongs from Memphis. This Jewish settlement is represented by the modern Tall al-Yahûdiyyah, and seems to be the Scenæ Veteranorum of the Roman writers.

Ptolemy VIII, Eupator II, or Neos Philopator, was murdered by his uncle.

Ptolemy IX, Euergetes II (**Physkon**), finished the building of the temple of Edfû, and repaired many temples both in Egypt and Nubia. He reigned from **147 to 117 B.C.**

Ptolemy X, Soter II (Lathyrus), who began to reign **117 B.C.,** was banished to Cyprus in 106, and his brother **Ptolemy XI, Alexander I,** reigned with Cleopatra III until he was killed in 87; Ptolemy X died about 81 B.C.

Ptolemy XII, Alexander II, was killed in 81 or 80.

Ptolemy XIII, Neos Dionysos, called "Auletes," *i.e.*, the "flute player," reigned from **80 to 52 B.C.**

Ptolemy XIV and **Cleopatra VII, Tryphaena;** the Senate of Rome appointed **Pompey** to be their guardian; after the battle of Pharsalia Pompey came to Egypt, but was slain by the machinations of Ptolemy, who had banished his wife Cleopatra. In 48 **Julius Cæsar** came to Egypt to reinstate Cleopatra, and defeated the forces of Ptolemy, who was drowned. **Ptolemy XV** was appointed co-regent with Cleopatra by Cæsar, but three years later (in 45) he was murdered by Cleopatra's orders, and her son by Cæsar, who is known as **Ptolemy XVI, Cæsarion,** was named co-regent in his stead (**36 B.C.**). The rule of the Ptolemies lasted **275 years.** Cæsar was murdered in 44, and **Antony,** his successor in Egypt, lived with Cleopatra until the Roman Senate despatched a force against him under **Octavianus,** who captured Alexandria, and became master of Egypt. About 30 B.C. Antony killed himself, and Cleopatra killed herself, either by poison or by the bite of an asp. **Thus Egypt became a Roman province.**

IV.—THE ROMAN PERIOD.

30 B.C. Octavianus appointed **Cornelius Gallus** first Prefect of Egypt; he suppressed a revolt in the Thebaïd and a serious rising of the Ethiopians, or, rather, Nubians. He was recalled by Octavianus (who now reigned under the title of **Augustus**), and killed himself.

28 B.C. **Gaius Petronius,** the second Prefect of Egypt, suppressed a revolt in Alexandria and tightened the grasp of the Romans on the country.

25 ,, **Ælius Gallus,** the third Prefect of Egypt.

24 B.C. Gaius Petronius (recalled) marched against a confederation of Nubian tribes which had invaded Egypt and defeated the Roman garrisons at Philæ and Syene. The Romans invaded Nubia and advanced as far as Napata, overcoming all the resistance which was offered them on their way.

23 B.C. Rebellion of Nubians under **Candace.** The rising was soon suppressed, and Candace sent envoys to Rome to beg for peace, asking that her territories might be restored to her.

Tiberius.—In his reign **Germanicus** Cæsar visited Egypt.

A.D. 14. "Next he visited the vast ruins of ancient Thebes. "There yet remained on the towering piles "Egyptian inscriptions, with a complete account of the city's "past grandeur. One of the aged priests, who was desired to "interpret the language of his country, related how once "there had dwelt in Thebes 700,000 men of military "age, and how with such an army Rhamses conquered "Libya, Ethiopia, Media, Persia, Bactria, and Scythia, and "held under his sway the countries inhabited by the Syrians, "Armenians, and their neighbours, the Cappadocians, from the "Bithynian to the Lycian Sea. There was also to be read what "tributes were imposed on these nations, the weight of silver and "gold, the tale of arms and horses, the gifts of ivory and of per- "fumes to the temples, and the amount of grain and supplies "furnished by each people, a revenue as magnificent as is now "exacted by the might of Parthia or the power of Rome. But "Germanicus also bestowed attention on other wonders. "Chief of these were the stone image of Memnon, which, "when struck by the sun's rays, gives out the sound of a "human voice; the pyramids, rising up like mountains amid "almost impassable wastes of shifting sand; raised by the "emulation and vast wealth of kings; the lake (*i.e.*, Moeris) "hollowed out of the earth to be a receptacle for the Nile's "overflow; and elsewhere the river's narrow channel and "profound depth which no line of the explorer can penetrate. "He then came to Elephantine and Syene, formerly the limits "of the Roman Empire, which now extends to the Red Sea." —*Tacitus*, book ii., §§ 59–61 (Church and Brodribb). Æmilius Rectus and Avillius Flaccus were appointed Prefects.

Caligula.—Many conflicts took place in Alexandria be-

A.D. 37. tween the Greeks and Jews, and the latter were treated with great rigour and deprived of their rights of citizenship.

Claudius.—In his reign trade between the East and Egypt

A.D. 41. was developed, and the internal prosperity of Egypt was improved, chiefly through the attention which was given to irrigation.

Nero is said to have sent officers to trace out the sources of

A.D. 54. the Nile. Christianity was preached in Egypt by St. Mark at the end of his reign.

,, **68.** **Galba.**

,, **69.** **Otho.**

A.D. 69. **Vitellius.**

Vespasian arrived in Alexandria and was regarded as a god; A.D. 69. his rule appears to have been just, and he attended carefully to the administration of the finances of the country. He sent troops from Egypt to take part in the siege of Jerusalem, which was being conducted by his son **Titus. Jerusalem was destroyed** in the year **70.**

Titus.—During his reign a new Apis Bull was installed in A.D. 79. Memphis, and the Emperor assisted at the ceremonies.

,, 81. **Domitianus** built temples to Isis and Serapis in Rome. In this reign Juvenal was banished to Syene.

,, 96. **Nerva.**

Trajan.—Serious disturbances broke out between the Greeks A.D. 98. and Jews, and a Roman force under Marcius Turbo had to be sent to rescue the Greeks, who were besieged by the Jews in Alexandria; the Jewish population of Alexandria was destroyed. The canal **(Amnis Trajânus)** which connected the Nile with the Red Sea was cleared out and traffic on it resumed. Turbo built the fortress of Babylon.

Hadrian visited Egypt twice, and he took great interest in A.D. 117. the restoration of buildings, and in Egyptian literature. On one of his voyages up the Nile, **Antinous,** a youth who was a great favourite of the Emperor, either drowned himself or was drowned accidentally, and Hadrian built the city of Antinoopolis in memory of him. A road also was made by him from the city to Berenice on the Red Sea. Hadrian and his wife Sabina visited the **Colossi of Amenophis III** at Thebes to hear the sounds which proceeded from the northern statue.

A.D. 138. **Antoninus Pius.**

Marcus Aurelius.—A revolt of the Bucolic troops, led by A.D. 161. Isidore, a priest, broke out in this reign, and a Roman officer was killed and eaten by the rebels. It was suppressed by Avidius Cassius. Unfortunately for himself he was subsequently proclaimed emperor by his soldiers, but after a short time he was slain by a centurion, and his son Maecianus was murdered by the troops. Marcus Aurelius caused the famous *Itinerary* to be made.

A.D. 180. **Commodus.**

,, 193. **Pertinax.**

A.D. 193. **Didius Julianus.**

,, 193. **Pescennius Niger.**

,, 193. **Septimius Severus** visited Egypt. An edict was issued against the Christians.

Caracalla visited Egypt, and because of the insults of the Alexandrians he ordered a general massacre of all the young men in the city. He was murdered by a soldier.
A.D. 211.

A.D. 217. **Macrinus** appointed Basilianus Prefect of Egypt, and Marius his deputy.

Elagabalus.—In his reign Marius was killed in a faction fight at Alexandria, and Basilianus escaped to Rome.
A.D. 218.

Decius.—A systematic attempt to destroy the Christians was made, and every person was called on to offer sacrifice or die.
A.D. 249.

,, 253. **Valerianus.**—Further persecution of the Christians.

Gallienus.—Persecution of Christians stayed. In his reign, **Zenobia**, Queen of Palmyra, invaded Egypt (**A.D. 268**).
A.D. 260.

Aurelian.—Zenobia became Queen of Egypt for a short time, and her followers struck coins with the head of Aurelian on one side and that of Vaballathos on the other. She was dethroned in **273.**
A.D. 270.

Probus attacked and defeated the Blemmyes on the south, and once more made the Romans masters of the country.
A.D. 276.

Diocletian.—The Blemmyes became so powerful at this time that they compelled the Romans to withdraw their troops from northern Nubia, and the Romans employed the Nobatæ, a powerful desert tribe, to protect Upper Egypt and to keep the Blemmyes in check. In **295** Lucius Domitius Domitianus headed a revolt in Alexandria, and was proclaimed king by the populace; Diocletian came to Egypt and besieged Alexandria for several months, and when the city fell he well-nigh destroyed it. **Pompey's Pillar** was set up in **302**, and the savage persecution of the Christians began in **304.** The Copts date the Era of the Martyrs from August 29th, **284.**
A.D. 284.

Constantine the Great.—In this reign a serious dispute arose about the nature of Christ between **Arius** and **Athanasius**; the former maintained that
A.D. 324.

Christ was only **similar in nature** to God, and the latter, who set forth the views of Alexander, Bishop of Alexandria, that Christ and His Father were of one and the **same nature.** Constantine was appealed to for a decision, whereupon he summoned a council of bishops at Nicaea, and the views of Arius were condemned as unorthodox. On account of the unpleasant relations which existed between the people of Alexandria and the Emperor, Constantine withdrew his favour from the city, and **founded Constantinople (Byzantium).**

Constantius.—George of Cappadocia, an Arian, is made Bishop of Alexandria, and, with the help of the Government, he endeavoured to crush Athanasius and his followers.

A.D. 337.

Julian the Apostate rejected Christianity and permitted the followers of the old pagan religions of Egypt to follow their favourite beliefs. George the Arian was set upon by the populace of Alexandria and murdered in the streets.

A.D. 361.

Theodosius I, the Great, proclaimed Christianity the religion of his Empire. In Alexandria the orthodox Christians attacked pagans and Arians alike, and Alexandria became the centre of frequent fights between the followers of the chief religious factions. The temples and many other buildings were turned into churches throughout Lower Egypt, but in the upper country the Imperial edict could not be enforced, and the worship of the old gods of Egypt lingered on. It has been said, and not without some show of reason, that the revenues of the pagan temples were as much the object of the reformer's zeal as the conversion of the pagans themselves to Christianity.

A.D. 378.

V.—THE BYZANTINE PERIOD.

Arcadius.—In his reign the secular power passed into the hands of Theophilus, patriarch of Alexandria, who proceeded to kill those who did not accept his views as to the anthropomorphic theory of God.

A.D. 395.

Theodosius II.—The patriarch Theophilus died in 413, and was succeeded by Cyril, who began to quarrel with the Jews, and his influence was so great on the mob that the Jewish quarter was plundered and wrecked, and the houses of wealthy Jews were destroyed. The **murder of Hypatia** by the monks, which took place in the Church of

A.D. 408.

the Cæsareum, was the result of the successes of Cyril. In this reign the doctrines of **Nestorius** were condemned by Cyril, for, in addition to the two natures of Christ, Nestorius inferred also two persons, a human and a divine.

Marcianus.—In his reign **Eutyches** of Constantinople proclaimed that Christ possessed one person only, and **one nature only**, namely, the Divine, the human having been absorbed into it. In **451** the Council of Chalcedon condemned the views of Eutyches, but in spite of this the Copts of Egypt, who are Monophysites, practically adhere to his opinions on this matter. Towards the end of the reign of Theodosius II, the Blemmyes again began to trouble Egypt, and as they attacked Egypt in force after his death, the new Emperor was obliged to send his general into Nubia and punish them. As a result the Blemmyes and the Nobatæ made an agreement with the Romans, in which they promised to keep the peace for one hundred years; but they broke it very shortly afterwards. In this reign the people of Alexandria burned down the temple of Serapis.

A.D. 450.

Zeno issued the HENOTICON, an edict which, whilst affirming the Incarnation, made no attempt to decide the difficult question whether Christ possessed a single or a double nature.

A.D. 474.

Anastasius.—In his reign the Persians invaded the Delta, and the Roman troops were unable to stop their advance. Peter Mongus died, and there was peace among the ecclesiastics for a short time. Anastasius sent a mission to the Homeritæ of Arabia.

A.D. 491.

Justinian.—The Monophysites separated from the Melkites or Royalists, and chose their own patriarch; they were afterwards called Copts. In this reign Hadad, King of Axum, opened negotiations with the Romans at Alexandria, and **Narses**, by the royal command, went up the Nile to Philæ and destroyed the **temple of Isis and Osiris** there, and carried the statues of the gods to Constantinople.

A.D. 527.

During the first half of the 6th century the **Nubians** as a nation **embraced Christianity**, the first Christian kingdom being established by **Silko**, king of the Nobadae, who made **Donkola** his capital.

Heraclius I.—The Persians invaded Egypt and besieged Alexandria in **619**; they held Egypt for ten years. In **629**, under the influence of the

A.D. 610.

victories of **Muḥammad the Prophet,** the Arabs revolted from the rule of Persia, and Heraclius, seizing the opportunity, marched into Syria, scattering the Persians before him, and once more became master of Egypt.

The **Era of the Hijrah,** *i.e.*, the **Flight,** dates from the day when Muḥammad the Prophet fled with Abû Bakr from Mecca to Madînah, *i.e.*, on the fourth day of the month Rabi al-Awwal, on **June 20th,* A.D. 622.** They arrived at Madînah on Monday, June 28th, having accomplished the journey in eight days. The usual caravan time is eleven days, but the distance between Mecca and Madînah is often covered in five or six days. Muḥammad and Abû Bakr really started on their journey from the Cave of Thaur. The name of Muḥammad's camel was "Al-Kaswa." Muḥammad died in **632.**

VI.—THE MUḤAMMADAN PERIOD.

'Amr ibn al-'Aṣi, the general of 'Omar, arrived at Pelusium with a force of between 7,500 and 8,000 men, and defeated the garrison in a month. The Arabs marched to Bilbês, and then to Miṣr, or "Babylon of Egypt," which was defended by a large Roman army, and guarded by the fortress which Turbo built in **116.** The fortress was surrendered chiefly through the machinations of Al-Maḳauḳas, whom Mr. Butler has proved to be no other than Cyrus, the "misbelieving governor who was appointed by Heraclius after the recovery of Egypt from the Persians to be both Patriarch and Governor of Alexandria." **Thus Egypt became a province of the Empire of the Arabs.**

A.D. 640.

Once master of Egypt, 'Amr set to work to build on the plain close to Babylon a Muḥammadan capital, which he called **"Al-Fusṭâṭ,"** *i.e.*, "The Camp." The word Fusṭâṭ is derived from the Byzantine Φοσσᾶτον. Fusṭâṭ remained the capital of Egypt until Cairo was founded in **969.**

The Khalîfah **'Omar** was murdered, and 'Abdallâh ibn Sa'ad was appointed Governor of Egypt. **'Othmân** becomes Khalîfah.

A.D. 644.

,, 645. Alexandria was seized by Manuel, but he was driven out by 'Amr, and Alexandria was laid waste.

* This is the true date. According to Muḥammadans the Era began on **July 16th, A.D. 622.**

A.D. 652. 'Abdallâh ibn Sa'ad invaded Nubia, captured Donkola, and compelled the people to make a treaty with him.

A.D. 656. 'Alî becomes Khalîfah.

,, 664. 'Amr died, leaving to his sons a fortune of 70 sacks of dînârs.

A.—The 'Omayyad Khalîfahs.

A.D. 661. **Mu'âwîyah.**
,, 661. **Yazîd** ('Abdallâh ibn Zubar).
,, 683. **Marwân I.**
,, 685. **'Abd al-Malik.**
,, 705. **Al-Walîd I.**
,, 715. **Sulêmân.**
,, 717. **Omar ibn 'Abd al-'Azîz.**
,, 720. **Yazîd II.**
,, 724. **Hishâm.**
,, 724. **Al-Walîd II.**
,, 744. **Yazîd III.**
,, 744. **Ibrahîm.**
,, 744. **Marwân II.**

B.—The 'Abbâsid Khalîfahs.

A.D. 750. **As-Saffâh.**
,, 754. **Al-Mansûr.**
,, 775. **Al-Mahdî.**
,, 785. **Al-Hâdî.**
,, 786. **Ar-Rashîd.**
,, 809. **Al-Amîn.**
,, 813. **Al-Ma'mûn.**
,, 833. **Al-Mo'tasim.**
,, 842. **Al-Wâthik.**
,, 847. **Al-Mutawakkil.**
,, 861. **Al-Muntasîr.**
,, 862. **Al-Musta'în.**
,, 866. **Al-Mo'tazz.**

C.—The Dynasty of the Tûlûnid Khalîfahs.

A.D. 868. **Ahmad ibn Tûlûn** was born in September, **835**, and entered Egypt in **868**. He built the suburb Al-Katâi in **870**; in **876** he began to build his great mosque, which cost 100,000 dînârs, took Damascus and occupied Syria in **878**, and acquired territory in Mesopotamia. He died in May, **884**, leaving 10,000,000 dînârs in his treasury.

Khumâraweyh, the second of Aḥmad's seventeen sons, succeeded his father at the age of 20; he was murdered in **896** by his slaves whilst at Damascus. His eldest son, **Abû l'-Asâkir**, reigned for a few months, and was also murdered, and another son, **Abû Mûsâ Hârûn**, also reigned for a short time, and was murdered as he lay drunk in his tent on December 29th, **904**. The following year the whole of Ibn Ṭûlûn's descendants were taken to Baghdad by the Khalîfah's general, Muḥammad, and his suburb of Cairo was sacked and burned, and rapine and murder were, for four months, the order of the day.

A.D. 884.

A.D. 906. **Muḥammad al-Khalangî** usurps the rule of Egypt for eight months.

D.—The Dynasty of the Fâṭimid Khalîfahs.

A.D. 913. **Khubâsa**, the Fâṭimid general, occupied Alexandria, but was driven out by the Egyptians.

Alexandria was again captured by the Fâṭimid troops, and their fleet arrived off the city, but they were once more driven out by the Egyptians.

A.D. 919.

Muḥammad ibn Ṭughg, called the **Ikhshîd**, took over the government of Egypt in August of this year; he died at Damascus in July, **946**, and was buried in Jerusalem. He was a great builder, and set up a magnificent palace in the place called the "Garden of Kâfûr." In his reign the Arab historian Mas'ûdî visited Egypt.

A.D. 935.

A.D. 946. **Abû l-Ḳâsim**, son of Muḥammad al-Ikhshîd.

Abû l-Ḥasan 'Ali, son of Muḥammad al-Ikhshîd. These two brothers were only rulers of Egypt in name, for they were merely puppets of the black eunuch, Kâfûr, who acted as regent. Each was allowed 400,000 dînârs per annum, and was ordered to do anything he pleased except interfere in affairs of State.

A.D. 961.

Abû l-Misk Kâfûr was an Abyssinian slave who was bought by Muḥammad al-Ikhshîd from an oilman for about £10, and was appointed governor of his master's sons; he died in **968**.

A.D. 965.

A Fâṭimid army entered Fusṭâṭ, and **Al-Mu'izz*** became master of Egypt; he was a prudent, generous, and cultured ruler, and he belonged to the Shî'a

A.D. 969.

* The first three Fâṭimid Khalîfahs were:—(1) **Al-Mahdî, 909-934**; (2) **Al-Kâ'im, 934-945**; (3) **Al-Manṣûr, 945-953**.

or "free-thinking" section of the Muḥammadans. The general who conquered Egypt for the Fâṭimids was called **Gawhar**, nicknamed "the Roman," who had formerly been a slave. He founded a new capital, and because Mars, Al-Ḳâhir, was in the ascendant when the first sods were turned, he called the city Al-Ḳâhirah, or "the victorious," and from this name the modern name "Cairo" has been derived. Gawhar at once compelled the corn merchants to sell their grain to the people at fair prices, and did much to relieve the sufferings among the people which were caused by the famine; in his time the plague was so severe that the dead could not be buried fast enough, and the bodies had to be thrown into the Nile. He founded the mosque Al-Azhar in **970**, and finished the building in **972**. Al-Mu'izz died in **975**.

Al-'Azîz, the son of Al-Mu'izz, was a great hunter and warrior, and had red hair and blue eyes; one of his wives was a Christian, and her two brothers were appointed Melkite, or "royalist," patriarchs of Alexandria and Jerusalem. During the reign of Al-'Azîz Egypt enjoyed complete peace and prosperity, and, in Mr. Stanley Lane Poole's words, his name "was prayed for in the mosques from the Atlantic to the Red Sea, in the Yemen, in the sanctuary of Mekka, and once (in **992**) even in the pulpit of Môṣil."

A.D. 975.

Al-Ḥâkim succeeded his father, Al-Azîz, when he was eleven years old, and when he was free from the direction of his tutor, Bargawân, he gained the reputation for being a madman. He summoned his councils to meet at night, for he loved the darkness, he ordered business to be transacted after sunset, women were not allowed to possess outdoor boots, the vines were cut down, honey was thrown into the Nile, dogs were ordered to be killed whenever found in the streets, and he persecuted the Christians. In **1005** he founded the "Hall of Science," the object of which was to propagate the tenets of the Shî'a sects, and he established an Observatory on the Muḳaṭṭam hills, where he studied astrology. In a mad fit he ordered Fusṭâṭ to be set on fire, and after three days' fighting half the city was actually burned down. Finally his madness made him declare that he was the Incarnation of God, and a preacher in the mosque of 'Amr actually began an address with the words "In the name of Al-Ḥâkim the Compassionate, the Merciful." He was the friend and patron of Darâzî, the founder of the Druzes, whom he hid when the Turkish soldiers besieged his palace.

A.D. 996.

On February 13th, **1021**, Ḥâkim set out for his usual ride in the desert near the Muḳaṭṭam hills, where he seems to have been murdered; his ass was found a few days later, also his coat of seven colours with dagger marks on it, but his body was never recovered.

Zâhir, son of Al-'Azîz, was 16 years old when he succeeded, and the affairs of State were controlled by his aunt for four years. He is said to have invited 2,660 singing girls into a mosque and to have closed the doors and bricked them up so that all the wretched company died of starvation. He himself died of the plague in June, **1036.**

A.D. 1021.

Ma'add, or **Abû Tamîm Ma'add** al-Mustanṣîr bi-llâh, ascended the throne at the age of seven. His mother was a Sûdânî slave, and she and her former master, Abû Sa'îd, a Jew of Tustar, practically ruled Egypt during Ma'add's boyhood. In **1065** a seven years' famine began, and the distress became so great that "at last people began to eat each other. Passengers were caught in the streets by hooks let down from the windows, drawn up, killed, and cooked. Human flesh was sold in public." In **1043** the power of the Fâṭimids began to decline in Syria, and in **1060** Aleppo was lost to Egypt. The Saljûḳ general Atsîz conquered Palestine and entered Jerusalem in **1071**, and five years later he took Damascus, and thus Palestine and Syria were lost to Egypt.

A.D. 1036.

A.D. 1036.

A.D. 1094. **Al-Musta'lî,** the seventh son of Ma'add. He died in **1101.**

,, 1099. The Christians regained possession of Jerusalem, and massacred 70,000 defenceless Muḥammadans.

,, 1101. **Abû 'Alî al-Manṣûr,** commonly known as **Al-Amîr.**

,, 1102. Baldwin, King of Jerusalem, and 700 knights were defeated by an Egyptian army.

,, 1110. The Crusaders became masters of Palestine and of the coast of Syria.

A.D. 1117. Baldwin invaded Egypt, burned Pelusuim, and marched on to Tinnis, but illness prevented his advancing further.

,, 1124. The Crusaders conquered Tyre.

A.D. 1130. Al-Âmir was murdered by ten assassins as he was returning from the Island of Rôḍah; in **1131** he was succeeded by his cousin, **Al-Ḥâfiz,** who died in October, **1149.**

A.D. 1149. Az-Zâfir.

,, 1154. Al-Fâiz. He died in July, **1160**, aged eleven years.

Al'Âḍid, the last of the Fâṭimid Khalîfahs, succeeded at the age of nine. **A.D. 1160.** The history of this reign practically resolves itself into the narrative of the struggle for power which went on between Shâwar, governor of Upper Egypt, and Ḍirghâm, a Lakhmi Arab, who had fought successfully against the Crusaders at Gaza. In **1163** Amalarick, the Christian King of Jerusalem, invaded Egypt. Shâwar was driven out by Ḍirghâm, and fled to Nûr ad-Dîn at Aleppo; he, however, refused to send an expedition against Egypt. Ḍirghâm was defeated by Amalarick at Bilbês, and to save himself was obliged to cut the dams and flood the country. In **1164** Nûr ad-Dîn sent troops with Shâwar to Egypt under the command of Shîrkûh and his nephew, Ṣalâḥ ad-Dîn (Saladin). The forces of Ḍirghâm were defeated, his troops forsook him, and as soon as he rode out of his fortress the populace fell upon him, and having cut off his head carried it in triumph through the streets. The victorious Shâwar quarrelled with Shîrkûh, who promptly sent Saladin to occupy the Delta; Shâwar then appealed to Amalarick, who sent his Crusaders to Egypt, but Shîrkûh managed to leave Bilbês with all his men, as a result of the armistice which had been arranged between Nûr ad-Dîn and Amalarick. In **1164** (April 18) Shîrkûh and Nûr ad-Dîn fought a pitched battle near Minyâ, and at length, after three invasions, the former became master of Egypt and ruled as Wazîr. His opponent, Shâwar, was put to death.

Ṣalâḥ ad-Dîn (Saladin) reigned 24 years, but he spent only eight in Egypt. **A.D. 1169.** He was born at Takrît on the Tigris in **1137**, and was the son of Ayyûb, a Kurdish officer in the service of the Khalîfah of Baghdâd. In **1171** Al-'Âḍid died, and with him perished the last of the Fâṭimids. Saladin conquered Syria and annexed Mesopotamia. He fortified Cairo with strong walls and built the Citadel, and under his orders the eunuch Ḳarâ-ḳûsh excavated the "Well of the Winding Stairs," 280 feet deep in the solid rock. The Citadel and the Gîzah dyke were built with stones taken from the small pyramids; the old aqueduct of Cairo, which is really Mamlûk work, has been attributed to him. Saladin died on March 4th, **1193**.

E.—The Dynasty of the Ayyûbid Khalîfahs.

Saladin's successors were :—

A.D. 1193. **Al-'Azîz 'Othmân**, his son.
,, 1198. **Al-Manṣûr Muḥammad.**
,, 1200. **Al-'Âdil Sêyf-ad-dîn.**
,, 1218 **Al-Kâmil Muḥammad.**
,, 1238. **Al-'Âdil II.**
,, 1240. **Aṣ-Ṣâliḥ Ayyûb**, grandson of Saladin's brother.
,, 1249. **Al-Mu'azzam Tûrânshâh.**
,, 1250. **Al-Ashraf Mûsâ.**

F.—The Dynasty of the Baḥrite Mamlûks.

Louis IX collected 2,800 French knights, 5,000 archers, and sailed for Egypt in 1,720 ships. He took Damietta, and marched on to Manṣûrah, but here some 1,500 of the flower of his army were killed. Subsequently he retreated to Damietta, but the Saracens pursued him and annihilated the Christian army. It is said that 30,000 Crusaders were slain. King Louis and the remainder of his army were held at ransom for 10,000,000 francs, but Tûrânshâh is said to have reduced this sum by one-quarter.

A.D. 1249.

The **Mamlûks** derive their name from the fact that they were originally slaves, who were either purchased or captured in war. The **Baḥri Mamlûks**, *i.e.*, "the white slaves of the river," were thus called because they lived on the Island of Rôḍah, opposite Fusṭâṭ. The 25 Baḥri rulers were :—

Shagar ad-Durr, a Queen.
A.D. 1250. **Al-Mu'izz Aybek.** He was murdered in his bath by his wife in **1257.**
,, 1257. **Al-Manṣûr 'Ali ibn Aybek.** He was deposed in November, **1259.**
A.D. 1259. **Al-Muzaffar Ḳuṭuz.** He conquered the Mongols, who were led by Hûlûgû. He was murdered in October, **1260.**
,, 1260. **Az-Zâhir Rukn ad-dîn Bêbars.** He was the first Mamlûk Sulṭân. He died in July, **1277.**
,, 1277. **As-Sa'îd Baraka Khân.** He abdicated the throne, and died in **1280.**

A.D. 1279. **Al-'Adil Salâmish.** He was deposed.

" 1279. **Al-Manṣûr Ḳalâ'ûn.** He built the Mâristân (completed in 1284). He died in his tent in 1290.

" 1290. **Al-Ashraf Khalîl.** He captured 'Akka (Acre), May 18th, 1292. He was murdered in 1293.

" 1293. **An-Nâsir Muḥammad.** He was deposed in a year, but restored in 1298 and 1309.

" 1294. **Al-'Adil Katbughâ.** A terrible famine occurred in his reign.

" 1296. **Al-Manṣûr Lâgîn.** He was murdered in January, 1299.

" 1298. **An-Nâṣir** (second reign). Deposed for 10 years.

" 1308. **Al-Muzaffar Bêbars II.** He abdicated and was shut up in prison in Gaza.

" 1309. **An-Nâṣir** (third reign). Reigned for 30 years more. He died in June, 1341.

" 1341. **Al-Manṣûr Abû Bakr.**

" 1341. **Al-Ashraf Ḳûgûḳ.**

" 1342. **An-Nâṣir Aḥmad.**

" 1342. **As-Ṣâliḥ Ismâ'îl.**

" 1345. **Al-Kâmil Sha'bân.**

" 1346. **Al-Mûzaffar Ḥâggî.**

An-Nâṣir Ḥasan. In his reign the plague attacked A.D. 1347. Egypt, and 10,000 to 20,000 people died in Cairo in one day.

" 1351. **Aṣ-Ṣâliḥ Ṣâliḥ.**

" 1354. **An-Nâṣir Ḥasan** (second reign).

" 1361. **Al-Manṣûr Muḥammad.**

" 1363. **Al-Ashraf Sha'bân.**

" 1376. **Al-Manṣûr 'Alî.**

" 1381. **Aṣ-Ṣâliḥ Ḥaggî.** He was deposed in 1382 by Barḳûḳ, who founded the dynasty of the Burgî or Circassian Mamlûks.

" 1389. **Aṣ-Ṣâliḥ Ḥaggî** (second reign).

G.—The Dynasty of the Burgite, or Circassian Mamlûks.

The **Burgî Sulṭâns** were all Circassians, with the exception of two, Khûshḳadam and Ṭîmûrbughâ, who were of Greek origin.

The Circassian Mamlûks obtained the name of "Burgite" because the founders of their dynasty were quartered in the "Burg," or Citadel.

A.D. **1382.** **Az-Zâhir Barķûķ.** He died in **1399.**

,, **1399.** **Farag.**

,, **1405.** **'Abd al-'Azîz.**

,, **1405.** **Farag** (second period of rule). He was executed in **1412,** and his body cast on a dung-heap.

,, **1412.** **Al-Musta'în.**

,, **1412.** **Al-Mu'ayyad.**

,, **1421.** **Aḥmad.**

,, **1421.** **Sêyf-ad-dîn Ṭaṭar.**

,, **1421.** **As-Ṣâliḥ Muḥammad.**

,, **1422.** **Bars-Bey** captured Cyprus in **1426;** he died in **1438.**

,, **1438.** **Al-'Azîz Yûsuf.**

,, **1438.** **Gaķmaķ** persecuted the Jews and Christians; he died in **1453,** aged 80.

,, **1453.** **'Othmân** was deposed after a rule of six weeks.

,, **1453.** **Sêyf-ad-dîn Înâl.**

,, **1461.** **Al-Mu'ayyad Aḥmad** abdicated.

,, **1461.** **Khûshkadam,** the Greek, abdicated.

,, **1467.** **Yel-Bey,** called the "madman," was deposed after a rule of two months.

,, **1467.** **Tîmûrbughâ,** a learned man, who was deposed, but allowed to live at Damietta.

Ķâ'it-Bey built two mosques, and restored many monuments. The plague visited Egypt in **1492,** and 12,000 people died in one day in Cairo.
A.D. **1468.** Ķâ'it-Bey died in **1496.**

A.D **1496.** **An-Nâṣir Muḥammad.**

,, **1498.** **Ķânṣûh.**

,, **1500.** **Ganbalât.**

,, **1501.** **Tûmân-Bey.**

,, **1501.** **Ķânṣûh al-Ghûrî** was killed at the battle of Aleppo, August 24th, **1516.**

Al-Ashraf Ṭûmân-Bey was hanged on April 14th, **1517,** when the Turks, under **Salîm,** occupied Cairo.
A.D. **1516.** The last Abbâsid Khalîfah of Egypt, Mutawakkil, died in **1538,** having bequeathed his title and rights to the Sulṭân of Turkey. **Thus Egypt became a province of the Turkish Empire.**

VII.—TURKISH RULE IN EGYPT.

The first governor of Egypt under Turkish rule was **Kheyr Bek.** When Salîm conquered Egypt he did his utmost to break the power of the Mamlûks, but he found it impossible to do this, and "he thought it wise to conciliate them, and to appoint **24 Beys** over the military provinces of that number into which he divided Egypt, subject to the supreme control of a Pâshâ, whose Council was formed of seven Turkish chiefs, while one of the Beys held the post of **Shêkh al-Balad,** or Governor of the Metropolis, an officer who became an object of hatred to the other chiefs." This system lasted for nearly two centuries, but the desire of each Bey to become the Pâshâ of Egypt produced much intrigue and many murders. Little by little the Beys increased their powers, and the authority of the Pâshâ diminished as theirs increased. In **1768 'Alî Bey,** the Shêkh al-Balad, ejected the Pâshâ and declared himself ruler of Egypt; he conquered a part of Arabia and of Syria, but was murdered by his general, **Abû Dhahab,** in **1772.** In **1773, Ismâ'îl, Ibrâhîm, and Murâd** and other Mamlûks fought for the mastery of Egypt, and in **1790** a Turkish army invaded Egypt and seized Cairo.

VIII.—FRENCH RULE IN EGYPT.

Napoleon Bonaparte lands near Alexandria with an army of 36,000 men (July 1st); storming of Alexandria (July 5th); Murâd meets the French in battle at Imbâbah, opposite Cairo, with 60,000 men, but is beaten, and about 15,000 of his men are killed. This fight is commonly called the **Battle of the Pyramids.** A few days later **Nelson** destroyed the French fleet in Abuķîr Bay.

A.D. 1798.

A.D. 1799. Destruction of the Turkish army by the French at Abuķîr.

Sir Sidney Smith signs a treaty at Al-'Arîsh granting General Kléber's army permission to leave Egypt (February 24th), but as he had to admit later that he had exceeded his powers, and that the British Government demanded the surrender of the whole French army as prisoners of war, General Kléber attacked the Turks at the village of Maṭariyyah and is said to have routed 70,000 men, an army six times as large as his own. A few months

A.D. 1800.

later Kléber was assassinated, and General Menou became commander-in-chief of the French army in Egypt.

Sir Ralph Abercromby lands at Abuḳîr Bay with 17,000 men (March 8th); **battle of Alexandria** and defeat of the French (March 21st); the French capitulate at Cairo (June 27th); the French capitulate at Alexandria (August 30th); **evacuation of Egypt by the French** (September).

A.D. 1801.

England restores Egypt to the Turks. As soon as the English left Egypt, severe conflicts took place between two Turkish parties in the country, the Albanians and the Ghuzz; to the former belonged Muḥammad 'Ali.

A.D. 1803.

IX.—MUḤAMMAD 'ALI AND HIS FAMILY.

Muḥammad 'Ali is elected Pâshâ of Egypt by the people. His election was afterwards confirmed by the Porte. He was born at Cavalla, a small town on the sea-coast of Albania, in **1769**, and he served in the Turkish army at an early age. He was sent with a body of troops to fight against the French, and enjoyed at that time the rank of major (*bimbashi*); he married the daughter of the governor of his native town, and by her had three sons, **Ibrâhîm, Ṭusûn, and Ismâ'îl.**

A.D. 1805.

General Fraser arrived at Alexandria with 5,000 British troops (March 17th), but being unsuccessful in his mission, he evacuated Alexandria on September 14th.

A.D. 1807.

Assassination of the Mamlûks by Muḥammad 'Ali. These unfortunate men were invited by Muḥammad 'Ali to attend the investiture of his son, Ṭusûn, with a garment of State at the citadel on March 1st. When they arrived they were graciously received and led into the citadel, but as soon as they were inside the gates were closed and Muḥammad 'Ali's soldiers opened fire upon them; about 470 of the Beys and their followers were murdered, and of all who entered only one is said to have escaped.

A.D. 1811.

Expedition to Sûdân led by Ismâ'îl, who was burned to death by an Arab shêkh called Nimr (**1822**) at Shendî.

A.D. 1820.

Muḥammad 'Ali sends about 8,000 troops to assist the Turks against the Greeks. In **1824** a **false Mahdî** appeared near Thebes, with about 25,000

A.D. 1821.

followers, but nearly all of them were massacred by the Government troops.

Invasion of Syria by Ibrâhîm, son of Muḥammad 'Ali. 'Akka was invested on November 29th, but was not captured until May 27th, **1832.** Ibrâhîm was victorious at Emesa on July 8th, he defeated Rashîd Pâsha, and destroyed the Turkish fleet so completely that Constantinople was in imminent danger of capture. In **1833** the whole of Syria was ceded to Muḥammad 'Ali, and the rule of his son Ibrâhîm was firm but just. In **1839** war again broke out between the Turks and Egyptians, and two years later Syria was given back to the former. In **1847** Muḥammad 'Ali visited Constantinople. In the course of the same year his reasoning powers became impaired.

A.D. 1831.

Ibrâhîm is appointed to rule Egypt on account of his father's failing health. He died after the reign of a few months, but Muḥammad did not die until August 3rd, **1849.** Muḥammad 'Ali was an able ruler, and one who had the interest of his country at heart. He created an army and a navy, and established equitable laws for collecting the revenues; he founded colleges of various kinds, and also the famous Bûlâk printing press. There is no doubt that but for the obstacles placed in his way by the British Government, and its interference, he would have freed Egypt entirely from Turkish misrule. His health and spirits were broken by England when she reduced his army to 18,000 men and forbade him to employ his fleet, which rotted away as it lay inactive at Alexandria.

A.D. 1848.

'Abbâs Pâshâ, the son of Ṭusûn, the son of Muḥammad 'Ali, succeeds Ibrâhîm. He was an incapable ruler, and is said to have been strangled at Banhâ in July, **1854.**

A.D. 1849.

Sa'îd Pâshâ, the fourth son of Muḥammad 'Ali, becomes ruler of Egypt. Though not a strong ruler, he was a just man, and he will be chiefly remembered for having abolished a number of cruel monopolies. In many particulars he sought to carry out his father's plans, and first and foremost among these must be mentioned the **building of railways in the Delta,** and the enlarging of the canals with the view of improving irrigation and of facilitating communication. He it was who supported the project of **making the Suez Canal,** and he gave M. de Lesseps the concession for it. He **founded the Bûlâḳ Museum,** and

A.D. 1854.

encouraged excavations on the sites of the ancient cities of Egypt.

Ismâ'îl, son of Ibrâhîm Pâshâ, and grandson of Muḥammad

A.D. 1863. 'Ali, becomes ruler of Egypt; he was born in **1830,** and by a decree of the Sulṭân, dated May 14th, **1867,** was made **Khĕdîve* of Egypt.** In the early years of the rule of this remarkable man everything seemed to go well, and the material welfare of the country of Egypt appeared to be secured. Apparently Ismâ'îl was straining every nerve to rule his country according to Western ideas of justice and progress. Railways were built, schools were opened, trade of every kind was fostered, and agriculture, upon which the prosperity of Egypt depends, was encouraged to a remarkable degree. The making of the Suez Canal, which was begun in **1859,** was carried on with great zeal under his auspices (as well as the **Fresh Water Canal,** which was begun in **1858** and finished in **1863**), and the work was successfully accomplished in **1869.** But the various enterprises in which he embarked cost large sums

A.D. 1875. of money, and towards the end of **1875** his liabilities amounted to £77,667,569 sterling. The salaries of the officials were in arrear, and the Treasury bills were shunned by all. In this year he sold 176,602 Suez Canal shares to the British Government for £3,976,582 sterling; these shares are now worth over 25 millions sterling.

In **1878** M. Waddington, the French Minister of Foreign

A.D. 1878. Affairs, urged Lord Derby to co-operate with France in an attempt to put the finances of Egypt on a sounder basis, and a Commission of Inquiry was instituted by the Decree of March 30th, under the presidency of Mr. Rivers Wilson. In April Ismâ'îl was obliged to find the sum of £1,200,000 to pay the May coupon of the Unified Debt, and it is said that he did so by the familiar process of "squeezing" the native. The labours of the Commission proved that "the land tenures were so arranged that the wealthier proprietors evaded a great portion of the land tax, and the system of forced labour was applied in a way which was ruinous to the country." (Royle, *Egyptian Campaigns*, p. 6.) Ismâ'îl had built himself palaces everywhere, and he and his family had become **possessed of one-fifth** of the best of the land of Egypt. The taxes were collected with great

* The Arabic form of the title is خُدَيْوِيّ *Khudêwîy.*

cruelty and injury to the native, and peculation and bribery were rampant everywhere. In August of this year a Cabinet was formed with Nubar Pâshâ at the head, with Rivers Wilson as Minister of Finance, and M. de Blignières as Minister of Public Works. At this time Ismâ'îl announced that he was, in future, determined to rule the country through a Council of Ministers. It must be remembered that the debt of Egypt at this time was about £90,000,000.

On February 18th, **1879**, Nubar Pâshâ and his Cabinet were, owing to the machinations of Ismâ'îl, mobbed by about 2,500 officers and men at the Ministry of Finance, but at the critical moment Ismâ'îl himself appeared, and the uproar ceased. At the same time, however, he told the European Consuls-General that unless more power were given to him he would not be responsible for what might happen. Soon after this he issued a Decree to raise the number of men in the army to 60,000, and in April he reduced the interest on the Debt. When Nubar Pâshâ resigned his office, Ismâ'îl appointed his own son, Tawfîḳ, as Prime Minister, but soon after this he dismissed the whole Cabinet and appointed a set of native Ministers with Sherîf Pâshâ as Prime Minister. As a result of this truly Oriental proceeding, England and France, after much hesitation, demanded the deposition of Ismâ'îl from the Sulṭân. About this time Ismâ'îl sent large bribes to the Sulṭân, but these availed him nothing, and on June 25th Mr. Lascelles, the British Consul-General, and M. Tricon, the French Consul-General, together with Sherîf Pâshâ, waited upon Ismâ'îl to inform him that he must at once abdicate in obedience to the orders of his sovereign master, the Sulṭân, which had been received from Constantinople. Ismâ'îl, of course, refused to do this, but about 10.30 a.m. a telegram addressed to Ismâ'îl Pâshâ, late Khedive of Egypt, was received at the Abdîn Palace, and it was taken to him by Sherîf Pâshâ, who called upon his master to resign in favour of **Tawfîḳ Pâshâ.** Almost at the same hour Tawfîḳ received at the Isma'îliyyah Palace a telegram addressed to Muḥammad Tawfîḳ, Khedive of Egypt, and when he went to the Abdîn Palace with Sherîf Pâshâ, who had come from there to tell him about the telegram to Ismâ'îl, he found his father ready to salute and to wish him better fortune than he himself had enjoyed. On Monday, June 30th, Ismâ'îl left Egypt in the Khedivial yacht for Smyrna, taking with him a large sum of money and about

A.D. 1879.

300 women; in **1887** he settled in Constantinople, where he died in **1895**. Under Tawfîḳ's rule the Control was restored, and on September 4th Rîaz Pâshâ became Prime Minister.

A.D. 1880. Commission of Liquidation appointed, and a number of reforms, including a reduction of the taxes, are made.

A.D. 1881. A rebellion headed by Aḥmad Arabi or "**Arabi Pâshâ**" and others breaks out. Arabi was born in the year **1840** in Lower Egypt, and was the son of a peasant farmer. He offended Ismâ'îl, and was accused of malpractices and misappropriation of army stores, but this the despot forgave him, and promoted him to the rank of colonel, and gave him a royal slave to wife. Arabi was the leader of a secret society, the aim of which was to free Egypt from foreign interference and control, and to increase the army, and make Tawfîḳ appoint an Egyptian to the office of Minister of War in the place of Osman Rifki. These facts coming to the notice of the authorities, Arabi and two of his colleagues were ordered to be arrested, and when this had been done, and they had been taken to the barracks in Cairo for examination, the soldiers who were in their companies rushed into the rooms and rescued them. The rebel officers and men next went to the palace where Tawfîḳ was, and compelled him to grant their requests, and to do away with the cause of their dissatisfaction.

A.D. 1892. H.E. **'Abbâs Hilmi Pâshâ,** the eldest son of Tawfîk Pâshâ, became Khedive of Egypt. The investiture took place on April 14 at the Abdîn Palace.

X.—BRITISH RULE IN EGYPT.

A.D. 1882. On February 2nd of this year Tawfîḳ was called upon to form a new Cabinet, and Arabi became Minister of War, and Maḥmûd Sami was appointed President of the Council; Arabi was created a Pâshâ by the Sulṭân, and his power became paramount. In May a serious dispute arose between Arabi and his colleagues and the Khedive; and on the 19th and 20th three British and three French vessels arrived at Alexandria. On May 25th the Consuls-General of England and France demanded the resignation of Maḥmûd Sami's Cabinet and the retirement of Arabi from the country. These demands were conceded on the following day, but shortly after Tawfîḳ reinstated Arabi, with the view of maintaining

order and the tranquillity of the country. "On June 3rd three more British and three more French warships arrived at Alexandria. On June 11th a serious riot broke out at Alexandria, and the British Consul was stoned and nearly beaten to death, and Mr. Ribton, a missionary, and a British naval officer and two seamen, were actually killed." The massacre had been threatened by Maḥmûd Sami, and the riot was pre-arranged, and the native police and soldiery were parties to the murders of the Europeans which took place on that day. Mr. Royle (*Egyptian Campaigns*, p. 54) estimates the number of Europeans killed at 150. On June 25th the Sulṭân decorated Arabi with the Grand Order of the Medjidieh! On July 11th, at 7 a.m. the **bombardment of Alexandria** was begun by H.M.S. "Alexandra" firing a shell into the newly made fortifications of the city, and the other British ships, "Inflexible," "Superb," "Sultan," "Téméraire," "Invincible," "Monarch," and "Penelope," soon after opened fire. After the bombardment was over, the city was plundered and set on fire by the natives, and an idea of the damage done may be gained from the fact that the Commission of Indemnities awarded the claimants the sum of £4,341,011 sterling (Royle, *op. cit.*, p. 102). On July 14th British seamen were landed to protect the city, and on the 15th many forts were occupied by them. Early in August Arabi was removed from his post, and he at once began to prepare to resist the English soldiers who were known to be on their way to Egypt; on August 15th Sir Garnet Wolseley arrived in Egypt; on the 18th the British fleet arrived at Port Sa'îd; on the 20th the British seized the Suez Canal, and the British Government was declared by M. de Lesseps to have paid to him £100,000 for loss of business! (Royle, *op. cit.*, p. 152.) On Sept. 13th Sir Garnet Wolseley was victorious at **Tall al-Kabîr**, at a cost of about 460 British officers and men; the Egyptians lost about 2,000, and several hundreds were wounded. On the 15th, Cairo was occupied by the British, and the 10,000 Egyptian soldiers there submitted without fighting. On December 26th Arabi left Egypt for exile in Ceylon.

A.D. 1883.

A rebellion led by the **Mahdî** breaks out in the Sûdân. The Mahdî was one **Muḥammad Aḥmad**, a carpenter, who was born between **1840** and **1850**; his native village was situated near the island of Arḳô, in the province of Donḳola, and, though poor, his parents declared that they belonged to the *Ashraf*, or "nobility," and claimed

to be descendants of Muḥammad the Prophet. His father was a religious teacher, and had taught him to read and write. He studied at Berber under Muḥammad al-Khêr, and later at Kharṭûm under the famous Shêkh Muḥammad Sherîf, and when he became a man he led a life of great asceticism on the island of Abâ, or Abba, in the White Nile. His piety and learning secured for him a great reputation in the Sûdân, and the greater number of the inhabitants sided with him in a serious quarrel which he had with Muḥammad Sherîf. He wandered about preaching against the Christians, and he declared that the decay in the Muḥammadan religion was due to the contact of Arabs with Christians, that true faith was dead, and that he was deputed by God to restore it. He then attached a number of important people to himself, and, having retired to Abba Island, he declared himself to be the "Mahdî," or the being, whose advent had been foretold by Muḥammadan writers, who would restore the religion of the Arabs to its former purity. In July, **1881,** Rauf Pâshâ, the Governor-General of the Sûdân, sent for him to come to Kharṭûm, but the Mahdî refused, and six weeks later he and his followers defeated the Government troops which had been sent to bring him, and slew half of them. In December he defeated Rashîd Bey, the Governor of Fâshôda, and slew nearly all the 400 soldiers whom he had with him at Kaddîr. In April, **1882,** Giegler Pâshâ, the temporary Governor-General, next attacked the Mahdî, and under his able generalship considerable loss was inflicted on the rebels; but on June 7th the Mahdî and his Dervishes massacred the combined forces of 'Abd-Allah and Yûsuf Pâshâ, and in September he besieged Al-'Ubêḍ, which capitulated on January 17th, **1883.** In the same month Colonel **W. Hicks,** a retired Indian officer, was appointed head of the army in the Sûdân, and on February 7th he left Cairo for Kharṭûm *viâ* Berber, which he reached on March 1st; in April he set out against the Dervishes, and on the last day of the month he defeated about 4,000 of them and killed about 500. On September 9th he set out with reinforcements for Dûwêm, intending to recapture Al-'Ubêd, but early in November the Mahdî attacked his force of about 10,000 men with some 40,000 soldiers from the old Egyptian army, and the gallant Englishman and his officers and men, who were suffering greatly from want of water, were cut to pieces. Hicks had been led astray in a waterless country near Kashgil by his guides,

who then ran away and left him. He wandered about for three days looking for water, and then by chance entered into the forest of Shekan, where the Mahdî lay waiting for him. When Hicks was overthrown he was within a mile of a lake of fresh water. **Thus the Mahdî became master of the Sûdân.** In February **Baker Pâshâ** set out with about 3,800 men to relieve Sinkat, but his motley troops were defeated at Tôkar, and about 2,400 of them slain, and thousands of rifles and much ammunition fell into the hands of the Dervishes.

A.D. 1884.

In January of this year **Charles George Gordon** (born January 28th, **1833**, murdered at Kharṭûm on Monday, January 26th, **1885**, a little before daybreak) was sent to Kharṭûm to arrange for the evacuation of the Sûdân; he left Cairo on January 26th and arrived there on February 18th. On February 28th, General Graham defeated the Dervishes at **At-Teb**, and nearly 1,000 of them were slain. On March 13th he defeated **Osmân Diḳna's** * army at **Tamâi** and killed about 2,500 of his men; Osmân's camp was burnt, and several hundred thousand of the cartridges which had been taken from Baker Pâshâ were destroyed. On the 27th, **Tamanib** was occupied by Graham and then burnt. About the middle of April the Mahdî began to **besiege Gordon** in Kharṭûm, and preparations for a relief expedition were begun in England in May; this expedition was placed (August 26th) under Sir Garnet Wolseley, who decided to attempt to reach Kharṭûm by ascending the Nile. This route made it necessary to travel 1,700 miles against the stream, and six cataracts, and other natural barriers, made the progress extremely slow; **General Sir F. Stephenson**, the highest authority on the subject, advised the route *viâ* Sawâkin and Berber, and by it troops could have entered Kharṭûm some months before Gordon was murdered. On the other hand, it has been urged that, as the town of **Berber surrendered** on May 26th, the main reason for an advance along the Sawâkin-Berber road was taken away (*Sudan Campaign*, Part I, p. 25). The expedition consisted of 7,000 men, and all of them had reached Wâdî Ḥalfah by the end of November. On December 2nd the troops at Donḳola set out for Kôrtî, which was reached by **Sir Herbert Stewart** on the 13th of the same month. Here it was decided to send a part of the force to

* *I.e.*, "Osman of the beard"; he was the son of a Turkish merchant and slave dealer who settled in the Eastern Sûdân early in the 19th century.

Kharṭûm across the desert, *viâ* Matammah, and a part by way of the river. On December 30th Sir Herbert Stewart set out with about 1,100 officers and men, and on January 2nd he seized the Gakdûl Wells, 95 miles from Kôrtî; after one day he returned with the greater part of his force to Kôrtî (January 5th) to fetch further supplies, having left 400 men at Gakdûl to build forts and to guard the wells. On the 8th he again set out for Gakdûl, and on the 16th he reached a spot about four miles from the wells of **Abû Klea,*** and 23 miles from Matammah; next day the famous battle of Abû Klea was fought, and 1,500 British soldiers defeated 11,000 Dervishes. The Dervishes succeeded in breaking the British square, but every one of them who got in was killed, and 1,100 of their dead were counted near it; the number of their wounded was admitted by them to have been very large. On the 18th General Stewart moved on towards Matammah and, after a march which lasted all day and all night, again fought the Dervishes on the 19th, and killed or wounded 800; in this fight, however, he received the wound of which he died. On the 20th **Abû Kru**, or Gubât, was occupied by the British; on the 21st Sir Charles Wilson attempted to take Matammah, but the force at his command was insufficient for the purpose. On the 22nd the British soldiers began to build two forts at Abû Kru; on the 23rd Sir C. Wilson began to make the steamers ready to go to Kharṭûm; and on the 24th he set out with two steamers and twenty men. Four days later he came to Tutî Island and found that Kharṭûm was in the hands of the Mahdî, whereupon he ordered his vessels to turn and run down the river with all speed; when they were out of the reach of the enemy's fire, Sir C. Wilson stopped them and sent out messengers to learn what had happened, and it was found that **Kharṭûm had fallen** on the night of the 25th, and that **Gordon** had been **murdered** a little before daybreak on the 26th. In short, the Relief Expedition was sanctioned **too late,** and when it started for Khartûm it went by the wrong route; the fate of Gordon himself was sealed by the inexplicable delay of the British at Gubât from January 20th to 24th. The Mahdî did not begin to move his troops over to Kharṭûm until he heard that the British had stopped at Gubât, and the transport was not finished until Sunday evening,

A.D. 1885.

* More correctly Abu Taliḥ ابو طَلح, a place abounding in acacia trees.

the 25th. Had the British steamers left Gubât on the 22nd even, they could have rescued Gordon easily, but they did not leave till the 24th, and the delay of four days was fatal. Gordon's head was cut off and taken to the Mahdî, but his body was left in the garden for a whole day, and thousands of Dervishes came and plunged their spears into it; later the head was thrown into a well. On February 13th the British troops, including those which had marched with General Buller to Gubât, retreated to Abû Klea, and a fortnight later they set out for Kôrtî, which they reached on March 1st. The portion of the British troops which attempted to reach Kharṭûm by river left Kôrtî on December 28th, **1884**, and reached Berti on February 1st, **1885**, and on the 9th was fought the **battle of Kirbekan** in which General Earle was shot dead. On the 17th the house, palm trees, and water-wheels of Sulêmân Wâd Ḳamr, who murdered Colonel Stewart, were destroyed, and on the 24th, orders having been received to withdraw, the river column made ready to return to Kôrtî, which was reached on the 8th of March. When it was seen that Lord Wolseley's expedition had failed to bring Gordon from Kharṭûm, it was decided by the British Government to break the power of Osmân Diḳna, and with this object in view the Sawâkin Expedition was planned. On February 17th, **1885**, the British Government made a contract with Messrs. Lucas and Aird to construct a railway of 4 feet 8½ inches gauge from Sawâkin to Berber.* On the 20th General Graham was placed in command of the Sawâkin Field Force, which consisted of about 10,500 officers and men. On March 20th General Graham fought an action at **Hashîn**, and two days later a fierce fight took place at **Tofrîk**, between Sawâkin and Tamâî. General McNeill was attacked by about 3,000 Dervishes, of whom 1,000 were killed, but the British loss was, relatively, considerable. In May the British Government recalled Graham's expedition, and abandoned the making of the railway to Berber, and thus Osmân Diḳna was again able to boast that he had driven the English out of the country (Royle, *Egyptian Campaigns*, p. 436). On June 22nd, the **death of the Mahdî** occurred; he was succeeded by 'Abd-Allah, commonly known as the "**Khalîfah.**" In July the last of the British troops of Lord Wolseley's expedition left Donḳola; by the end of September nearly the whole of the country as far north as

* *See* Parliamentary Paper C–4325, 1885 (Suakim–Berber Railway).

Wâdî Ḥalfah was in the hands of the Khalîfah, and it was seen that, unless checked, the Dervishes would invade Egypt. The late General Sir F. Stephenson and General Sir Francis (now Field-Marshal Lord) Grenfell attacked them at **Kôshah** and **Ginnis** on December 30th, and about 1,000 of the Khalîfah's troops were killed and wounded.

A.D. 1886. Towards the close of this year Osmân Diḳna withdrew from Sawâḳin to Omdurmân, partly because the Arabs about Sawâkin had defeated his troops and occupied Tamâî, and partly because he hoped for much benefit from the Khalîfah's attack on Egypt.

A.D. 1887. In June Osmân Diḳna returned to Sawâkin with about 2,000 Baḳḳârah Dervishes, but failed to move the people of the country; in the following month he returned to Omdurmân, but hearing that the Egyptian garrison at Sawâkin had been reduced, he returned with 5,000 men and determined to capture the city.

A.D. 1888. On January 17th Colonel (now Lord) Kitchener, at the head of some friendly Arabs, attacked and captured the Dervish camp, but eventually the Dervishes re-formed and turned the Egyptian victory into a defeat. On December 20th General Sir Francis Grenfell, with reinforcements, attacked Osmân Diḳna's troops and killed and wounded 500 of them.

A.D. 1889. In April **Wâd an-Nagûmî** had advanced as far north as Hafîr with about 5,000 men, and another 1,000 were at Sarras, only about 33 miles south of Wâdî Halfah. On July 1st Colonel Wodehouse, with about 2,000 Egyptian soldiers, defeated the Dervishes, under Wâd an-Nagûmî, at **Argîn**, near Wâdî Ḥalfah, killing 900 and taking 500 prisoners. On the 5th, General Grenfell left Cairo for the south with reinforcements, and made arrangements to meet the attack of Wâd an-Nagûmî, who, undaunted by his defeat at Argîn, was marching north; and on August 1st this redoubtable warrior collected his force of 3,300 men and 4,000 followers on the hills to the south of **Tushki**, or **Toski**. On the 3rd General Grenfell disposed his British and Egyptian troops in such a way as to check the advance of Wâd an-Nagûmî, who, however, only wished to get away and not to fight. He was at length forced to fight, and he fought bravely, but General Grenfell's tactics were so thoroughly well planned and carried out, that the Dervish force was completely routed and destroyed. About 1,200 were killed

and 4,000 were taken prisoners, and the Egyptian loss only amounted to 25 killed and 140 wounded. The effect on the country was marvellous, for, as Mr. Royle says (*op. cit.*, p. 485), "The victory of Toski marked the turning point in the invasion, and was a shock to the cause of Mahdiism, which it took years to recover." The Dervish reinforcements beat a hasty retreat, and the Khalîfah suspended all further operations for the invasion of Egypt.

A.D. 1890. Osmân Diḳna continued to make raids upon Sawâkin from Tôkar.

In January, Colonel (now Sir C.) Holled-Smith set out to

A.D. 1891. attack Osmân Diḳna, and on February 19th he routed the enemy at **Tôkar**, killing 700 men.

Osmân Diḳna continued to harass the Arabs round Sawâkin,

A.D. 1892-1895. and made raids wherever he thought he had any chance of success. On January 7th, **1892**, the Khedive, Tawfîḳ Pâshâ, died after a short illness at Ḥelwân, and he was succeeded by his eldest son, **'Abbâs II. Hilmy**; the Imperial Firman from the Porte confirming his succession cost about £6,154, and was read on April 14th.

In the early part of this year Osmân Diḳna's forces were

A.D. 1896. attacked and defeated with great loss by Colonel Lloyd, Major Sydney, and Captain Fenwick. On February 29th the Italians were defeated by the Abyssinians with severe loss at Adowa, and the Italian garrison at Kassala was in imminent danger from the Dervishes. With a view of assisting Italy by making it necessary for the Dervishes to turn their attention elsewhere, the British Government determined to advance to 'Ukâsha (Akâsha) and Donḳola. In the hands of **General Kitchener**, who had succeeded General Grenfell as Sirdar of the Egyptian Army in April, **1892**, the conduct of the new Sûdân Expedition was placed. On March 21st he left Cairo for the south, and the first serious skirmish between the Dervishes and Egyptians took place on May 1st. Early in June the Sirdar divided his forces, and one column marched upon **Farkat** by way of the river, and another across the desert. On June 7th the two columns joined hands, and a fierce fight ensued. The Sirdar's arrangements were so skilfully made and carried out, that the Dervishes were utterly routed; they lost about 1,000 killed and wounded, and 500 were made prisoners. Among the killed were about 40

of their chief men. The Egyptian loss was 100 killed and wounded. On September 19th the Sirdar occupied Hafîr after a fight, and four days later the Egyptian troops entered Donkola; Dabbah, Kôrtî, and Marawî were next occupied, and the country as far as the foot of the Fourth Cataract was once more in the hands of the Egyptians.

A.D. 1897. Early in this year the decision to make the Wâdî Halfah and Abû-Hamad Railway was arrived at, for the Sirdar regarded it as absolutely necessary; by this route nearly 350 miles of difficult river transport would be avoided. When the railway had advanced considerably more than half-way to Abû-Hamad, General Hunter marched from Marawî to Abu-Hamad and defeated the Dervishes, who held it in force, and occupied it on August 7th. Of the Dervish garrison of 1,500 men, about 1,300 were killed and wounded. Soon afterwards the Dervishes evacuated Berber, which was entered by General Hunter on September 13th. On October 31st the railway reached Abû-Hamad.

A.D. 1898. On April 8th, Good Friday, the Sirdar utterly defeated the great Dervish force under Mahmûd at the **Battle of the Atbarâ**; the Dervish loss was about 3,000 killed and 2,000 were taken prisoners, while the Sirdar's loss was under 600 killed and wounded. The forces engaged on each side were about 14,000. On September 2nd the **capture of Omdurmân** and the **defeat of the Khalîfah** 'Abdu-Allahi were accomplished by the Sirdar. The Khalîfah's forces numbered at least 50,000, and those of the Sirdar about 22,000. The Dervish loss was at least 11,000 killed and 16,000 wounded, and over 4,000 were made prisoners; the Sirdar's loss was rather more than 400 killed and wounded. The Khalîfah escaped and fled south, having first taken care to bury his treasure; the body of the Mahdî was removed from its tomb, and burnt, and the ashes were thrown into the Nile; the head is said to be buried at Wâdî Halfah. The tomb was destroyed because, if left untouched, it would always have formed a centre for religious fanaticism and sedition. On Sunday, September 4th, the Sirdar held a memorial service for General Gordon at Khartûm, when the British and Egyptian flags were hoisted. On the 19th the Sirdar hoisted the Egyptian and British flags at Fâ-shôda, which had been occupied by Major Marchand, the head of a French expedition, who sought to claim as a right a position on the Nile on behalf of France. On September 22nd

Colonel Parsons defeated the Dervishes at Ḳaḍâref (Gadaref). On December 7th Colonel Collinson occupied Ḳallâbât (Galabat), and hoisted the British and Egyptian flags by the side of the Abyssinian flag on the old fort there. On December 26th Colonel Lewis defeated Aḥmad Faḍîl, near Dakhîlah, and killed 500 of his men.

On January 7th Colonel Nason occupied Fâ-maka and Fâ-zôglî.

A.D. 1899. On January 25th General F. W. Kitchener set out to catch the Khalîfah, who had fled towards Kordôfân, but his expedition failed for want of water, In November it was said that the Khalîfah was at Gabal Ḳadîr, which lies to the north-west of Fâ-shôda, on the west bank of the Nile, and about 160 miles from the river. The Sirdar pursued with a large force, but the Khalîfah fled towards Kharṭûm. On November 22nd Colonel (now Sir) F. R. Wingate discovered his hiding place and quickly pursued him to Abba Island on the Nile, and learning that he was encamped at Umm Dabrêkât, attacked him on the 24th. After a fierce but short fight in the early morning Colonel **Wingate defeated the Khalîfah,** killing over 600 of his men, and taking 3,000 prisoners, besides 6,000 women and children. The Khalîfah met his fate like a man, and, seeing that all was lost, seated himself upon a sheepskin with his chief Amîrs, and with them fell riddled with bullets. The Egyptian loss was 4 killed and 29 wounded. The death of the Khalîfah gave the death-blow to Mahdiism. On December 17th Al-'Ubêḍ was occupied by Colonel Mahon, D.S.O. On December 22nd Sir Reginald Wingate was appointed Sirdar and Governor-General of the Sûdân.

✝ On March 4th of this year, Mr. **John M. Cook,** the late head of the firm of Thomas Cook and Son, died at Walton-on-Thames. The services which he rendered to the Egyptian Government were very considerable. In the Gordon Relief Expedition his firm transported from Asyûṭ to Wâdî Ḥalfah, a distance of about 550 miles, Lord Wolseley's entire force, which consisted of 11,000 British and 7,000 Egyptian troops, 800 whalers, and 130,000 tons of stores and war materials. In **1885, 1886,** and **1896** his firm again rendered invaluable services to the Government, and one is tempted to regret, with Mr. Royle (*The Egyptian Campaigns*, p. 554), that, in view of the melancholy failure of the Gordon Relief Expedition, his contract did not include the rescue of Gordon and the Sûdân garrisons. He transported the wounded

to Cairo by water after the battle of Tall al-Kabîr, and when the British Army in Egypt was decimated by enteric fever, conveyed the convalescents by special steamers up the Nile, and made no charge in either case except the actual cost of running the steamers. He was greatly beloved by the natives, and the Luxor Hospital, which he founded, is one of the many evidences of the interest which he took in their welfare. Thousands of natives were employed in his service, and it would be difficult to estimate the benefits which accrued indirectly to hundreds of families in all parts of the country through his energy and foresight. He was the pioneer of the improvements which have taken place at Luxor in recent years, and he was a generous supporter, both with his influence and with his money, of every scheme which he believed would improve the position of the Egyptians, and would enable them to rise from the depths of the poverty and misery into which they had fallen through misgovernment and the cruelty and oppression of their Turkish rulers. Justice was the one thing which he believed to be necessary for the salvation of the Egyptian, and all his personal efforts were for many years directed against the corrupt practices which in 1883 were well nigh universal. His fearless exposure of shams, his shrewdness, his moral strength and integrity, and his unswerving resolution, enabled him to carry out the reforms which many others had failed to effect.

A.D. 1900.

In January **Osmân Diḳna** was in hiding near Tôḳar, and Muḥammad 'Ali, the loyal Gạmilab Shêkh, found that he had entered his country. Captain F. Burges and Aḥmad Bey left Sawâkin on January 8th and 10th respectively, and a few days later they arrived at the Warriba range, which lies about 90 miles to the south-west of Sawâkin; and there Osmân was seen, apparently waiting to partake of a meal from a recently killed sheep. At the sight of his pursuers he fled up a hill, but was soon caught, and was despatched from Sawâkin in the s.s. "Berbera," and arrived at Suez on January 25th, *en route* for Rosetta, where he was imprisoned for some years. He was released, and went to live at Gêli, a little to the north of Kharṭûm. On September 25th **Slatin Pâshâ** was appointed British Inspector of the Sûdân. On November 2nd Major Hobbs opened a branch of the Bank of Egypt at Kharṭûm. On November 29th, Colonel Sparkes set out from Omdurmân to occupy the Baḥr al-Ghazâl Province. On December 31st,

1900, the outstanding capital of the Egyptian Debt amounted to £103,710,000, of which £7,273,000 was held by the Debt Commissioners, leaving a balance in the hands of the public of £96,437,000.

Early in **1901**, Tong, Wâw, Rumbek, Amadî, Kîrô, Shâmbî, Dêm Zubêr, Forga, Telgona, and other places in the Bahr Al-Ghazâl Province were occupied.

A.D. 1901.

The **revenue** was £E.12,160,000 and the **expenditure** £E.11,396,000, leaving a surplus of £E.1,460,000 in excess of the estimates, which were £E.10,700,000 and £E.10,636,000 respectively. The net financial result was a surplus of £E.700,000. The balance standing to the credit of the General Reserve Fund was, on December 31st, **1901**, £E.3,795,000, and on the same date the sum of £E.1,287,000 stood to the credit of the Special Reserve Fund. Of Domains lands, 13,764 acres were sold for £219,000, leaving in the hands of the Commissioners 165,051 acres valued at £3,330,454. The imports amounted to £E.154,245,000 and the exports to £E.15,730,000. The total number of men called out for the corvée was 8,763 for 100 days. In Egypt slavery was practically non-existent. The fees paid by tourists for visiting the temples, etc., amounted to £E.3,213. Lord Cromer reported that the year "was one of steady and normal progress. . . . The fiscal system has been placed on a sound footing. The principal irrigation works are either completed or are approaching completion. Means of locomotion, both by rail and road, have been improved and extended. The institution of slavery is virtually defunct. The corvée has been practically abolished. Although both the judicial system and the organization of the police admit of further improvement, it may be said that law and order everywhere reign supreme. The courbash is no longer employed as an instrument of government. The army is efficient and well organized ; the abuses which existed under the old recruiting system have been swept away. New prisons and reformatories have been built. The treatment of prisoners is in conformity with the principles generally adopted in Europe ; the sick man can be nursed in a well-equipped and well-managed hospital ; the lunatic is no longer treated like a wild beast. Means have been provided for enabling the peasantry to shake themselves free from the grip of the money-lenders. A very great impulse has been given to education in all its branches.

In a word, all the main features of Western civilization have been introduced with such adaptations as have been necessitated by local requirements. Broadly speaking, it may be said that all that is now required in Egypt is to persevere in the course which has been already traced out, and to gradually introduce into the existing system such requirements as time and experience may show to be necessary."

A.D. 1902. The **revenue** was £E.12,148,000, the **expenditure** £E.11,432,000, and the surplus £E.716,000. The balance standing to the credit of the General Reserve Fund was, on December 31st, **1902**, £E.2,931,000, and on the same date the sum of £E.1,678,000 stood to the credit of the Special Reserve Fund. Debt to the extent of £527,000 was paid off in the course of the year, and on December 31st, **1902**, the outstanding capital of the Debt amounted to £103,245,000, £94,471,000 being in the hands of the public. The amount of French capital invested in Egypt was more than £57,000,000. Out of 5,097,431 acres of land, 554,409 were held by Europeans. The circulation of notes amounted to £E.116,000. The value of the imports was £E.14,211,000, and of the exports £E.17,617,000. The eggs exported numbered 79,500,000. The amount of unirrigated land was 143,000 acres, as compared with 947,000 in **1877**. The number of men employed in corvée work was 4,970 for 100 days. During the year 238 slaves were freed.

A.D. 1903. The **revenue** was £E.12,464,000, and the **expenditure** £E.11,720,000, and the surplus £E.744,000, being £E.719,000 in excess of the estimates. On December 31st the loans to the Fallâḥîn amounted to £E.2,186,746, the number of borrowers being 78,911 persons. The sum of £E.3,439,864 was paid for the Aswân Dam and the Asyûṭ Barrage. Some 170,000 acres of basin land were converted into perennial irrigation at a cost of £E.190,000; as a result, the annual rental of these acres has been increased by £E.510,000, and the present sale value by £E.5,100,000. In corvée work 11,244 men were called out in **1903**. The imports were £E.16,146,000 and the exports £E.19,118,500. About 96,500,000 eggs were exported. Of the imports 42·5 per cent. were from Great Britain and her possessions, and of the exports 52·8 went to Great Britain. About 176,474 certificates of Moslem marriages were issued, and there were 52,992 cases of divorce.

Writing early in **1904**, Lord Cromer concludes his Report (*Egypt*, No. 1, **1904**) with the following noteworthy sentences:—"As regards moral progress, all that can be said is that it must necessarily be slower than advance in a material direction. I hope and believe, however, that some progress is being made. In any case, the machinery which will admit of progress has been created. The schoolmaster is abroad. A reign of law has taken the place of arbitrary personal power. Institutions, as liberal as possible under the circumstances, have been established. In fact, every possible facility is given and every encouragement afforded for the Egyptians to advance along the path of moral improvement. More than this no Government can do. It remains for the Egyptians themselves to take advantage of the opportunities of moral progress which are offered to them."

A.D. 1904.

On April 8th the Anglo-French Agreement was signed, wherein it was declared: "His Britannic Majesty's Government declare that they have no intention of altering the political status of Europe, and the Government of the French Republic, for their part, declare that they will not obstruct the action of Great Britain in that country by asking that a limit of time be fixed for the British occupation, or in any other manner." Thus England was freed from an irregular position, into which, through no fault of her own, she was forced by circumstances, and the material interests of France at stake in Egypt were secured by specific engagements, and for any apparent loss of political influence in Egypt she received ample compensation elsewhere. By the signing of the Agreement, forty-six Khedivial Decrees relating to the Caisse de la Dette have been wholly repealed, and six partially so. A new Decree on the subject was promulgated on November 28th, **1904**, and it came into operation on January 1, **1905**. The **revenue** for **1904** was £E.13,906,152, and the **expenditure** £E.12,700,332, and the surplus £E.1,205,820. Exclusive of tobacco, the value of the imports was £E.19,889,000, or £E.3,742,000 more than in **1903**; and the exports £E.20,316,000, or £E.1,200,000 more than in **1903**. The Customs revenue was £E.3,216,000. Tobacco produced £E.1,420,000, and tambak £E.57,000. About 620,500 kilos. of cigarettes were exported. The conversion of the Port Sa'îd tramway into a railway cost £E.240,000. A plague of locusts attacked Cairo in April, **1904**, and 241,528 men were called upon to destroy the creatures;

the labour was "forced," but no complaints were made. 21,369 kilos. of *ḥashîsh*, or Indian hemp, were confiscated. In **1904** there were 4,015 drinking shops in all Egypt. Systematic slave trade no longer exists in Egypt. Education cost £E.203,500, and there were 140,000 boys under the management of the Department. In **1904**, about 1,346,708 acres were planted with cotton, and the yield was rather less than 6,000,000 ḳanṭârs. The loss caused by the cotton worm was between one and two millions sterling. Nearly £E.600,000 were spent between **1894** and **1904** on Archæology, Museums, and the preservation of Arab monuments. In the middle of August Sir William **Garstin's Report** *upon the Basin of the Upper Nile* (Cd. 2165, "Egypt," No. 2, **1904**) appeared. He suggested the expenditure of £E.21,000,000, of which £E.13,000,000 would be in the Sûdân, and £E.8,000,000 in Egypt. The proposed expenditure in the Sûdân will not benefit only that country. The main item of £E.5,500,000 is for works in the Baḥr al-Gabal, and this expenditure would be almost entirely on Egypt's account. Broadly speaking, the whole plan is based on the principle of utilizing the waters of the White Nile for the benefit of Egypt, and those of the Blue Nile for the benefit of the Sûdân. It was proposed to spend on :—

	£E.
Middle Egypt canals	**1,000,000**
Railways	**3,000,000**
Raising the Aswân Dam	**500,000**
Remodelling Rosetta and Damietta branches	**900,000**
Works on the Bahr al-Gebel	**5,500,000**
Making a new channel between Bohr and the Sawbat River	**3,400,000**
Regulation of the lakes	**2,000,000**
Barrages between Asyûṭ and Kenâ ...	**2,000,000**
Conversion of the Upper Egypt basins...	**5,000,000**
Reservoir at Rosaires	**2,000,000**
Barrage on the Blue Nile	**1,000,000**
Gezirah Canal system	**2,000,000**

Sir William Garstin estimates that when the whole of his Egyptian project is carried out, 750,000 acres of land will be converted from basin into perennial irrigation; 100,000 acres will be made capable of being irrigated by pumps; 800,000 additional acres will be brought under cultivation; and that, at very moderate rates, the increased revenue to be derived from taxation will be £E.1,205,000 a year. The

Sawâkin–Berber Railway cost £E.1,375,000, *i.e.*, about £E.4,150 per mile. This line is now known as the "Nile–Red Sea Railway," or the "Atbarâ Port Sûdân Railway." An expenditure of £E.500,000 will carry out the Ḳâsh scheme of irrigation in the Sûdân, and bring under cultivation 100,000 acres. "The only hope of rendering the Sûdân ultimately self-supporting lies in the judicious expenditure of capital on railways and irrigation. An attempt will certainly be made in the near future to carry out an Egyptian railway and irrigation programme, involving a capital expenditure of £E.5,400,000, and it will involve raising the Aswân Dam and remodelling of the Rosetta and Damietta branches of the Nile." On August 17th the **Greek Orthodox Convent** of Old Cairo was destroyed by fire. The convent was a very old foundation, and had been standing for centuries. It was one of the oldest monuments of the Eastern Church in Egypt, and was associated with many important historical events.

A.D. 1905.

The **revenue** in **1905** was £E.14,813,000, and the **expenditure** £E.12,125,000; surplus about £E.2,689,000.

The **Imports** in **1905** were worth £E.21,564,000, and the **Exports** £E.20,360,000. The specie imported amounted to £E.4,782,000, and that exported to £E.3,870,000. Some 702,800 kilos. of cigarettes were exported.

Education cost £E.235,000. Manumission papers were granted in **1905** to 63 male and 90 female slaves in Cairo, and everyone must rejoice that a systematic trade in slaves is dead in Egypt. Would that the British authorities in Cairo had rule in other parts of Africa!* On April 1st, at 3.50 p.m., one of the Pyramids at Gîzah was struck by lightning, just below the apex, and several of the stones fell to the ground with a crash. Rain fell in torrents, and the low-lying parts of Cairo were flooded.

A.D. 1906.

On February 20th H.H. the Khedive visited the Oasis of Sîwah, with a suite consisting of Dr. Butler, Mr. Fals, Dr. Kautsky, an Egyptian Secretary, and an engineer. In the same month a steamer service was inaugurated on Lake Manzâlah, and the journey from

* According to Bishop Tucker, who wrote from Uganda (*Times*, April 12th, **1906**), "Slavery under the British flag may be found in a pure, unadulterated and unquestioned form in British East Africa. In Mombasa, Lamu, Malindi, and all the territory within the ten-mile limit, slavery is still a legalized institution."

Karputy (Port Sa'îd) to Maṭarîyah occupies about four hours. The steamers are of the stern-wheel type and have double promenade decks. Tug-boats and cargo barges have also been constructed. On January 12th the Sulṭân complained to the British Ambassador in Constantinople and to the Khedive of Egypt that Bramley Bey, an Egyptian officer, had pitched his camp on the Gâza Road near 'Aḳabah, and had declared his intention of erecting a guard house there in Turkish territory. The Egyptian Government denied that there had been any invasion of Turkish territory, and proposed that a Commissioner should be appointed to delimit the frontier. This the Sulṭân refused to agree to, and claimed that the district of 'Aḳabah was in Turkish territory. Subsequently the matter reached an acute stage, and Turkish troops occupied Tâbah. The Egyptian Government resisted the Sulṭân's claims, and at length His Majesty agreed to the appointment of a Frontier Commission.

In April, Maryâm, an Abyssinian outlaw at Noggara, raided several villages near Ḳaḍâref, killed 101 villagers, and carried off 41 men and 133 women, and numbers of cattle. In May, the natives who lived in the Nûbâ Mountains in the Southern Sûdân, incited by the Arab slave-raiders, attacked the Government Fort at Tâlôdî and killed a number of soldiers. The Sûdân Government despatched Major O'Connell with a force to punish the rebels, and this officer, in spite of the rains and flooded state of the country, reached Tâlôdî quickly, and, in the fight which followed, killed 300 of the natives, whose wish was to re-open the slave trade. The little garrison had held out bravely, but were in sore straits when relief arrived. Order was soon restored, and the natives in the neighbourhood of Gabal Ḳadîr, where the Mahdî first preached his Mission, supported Major O'Connell. In June, five officers of Mounted Infantry went to shoot pigeons at Danshawâi, near Ṭanṭâ, but were surrounded by natives, and so evilly treated that Major Pine Coffin was knocked down, and Captain Bull died of the injuries he received. The attack was premeditated, and was due to the fanatical feeling which exists in that part of the Delta. A large number of arrests were made, and the leaders of the attack were tried by a special court; four were hanged, others were whipped, and others were sentenced to terms of imprisonment.

The total value of merchandise exported and imported was £E.48,888,000; the **imports** were valued at £E.24,011,000.

The **revenue** was £E.15,337,000, and the **expenditure** £E.13,162,000. **Education** cost £E.374,000. Thirty-two Higher **Primary Schools** had 7,584 pupils, and 4,432 **Native Schools** (Kuttabs) had 156,542 pupils (145,838 boys and 10,704 girls). The cotton crop realized £27,000,000.

A.D. 1907. In April Lord Cromer resigned his position of Agent and Consul-General, and was succeeded by Sir Eldon Gorst. This year a financial crisis took place which checked the financial and commercial expansion of the last few years. Several banks refused to grant further advances, large loans were called in, and the prices of local securities declined steadily until the month of June; there was a general feeling of alarm and mistrust throughout the country. Import trade was shaken, stocks accumulated in bonded warehouses, and several business houses suspended payment. The quantity of cotton exported in 1888 was 3,075,000 ḳanṭârs, and in 1906-7 6,778,000 ḳanṭârs, and the price per ḳanṭâr rose from £E.2·95 in 1888 to £E.3·74 in 1906-7. The actual **revenue** in 1907 was £E.16,368,000, and the **expenditure** £E.14,280,000. The total value of **merchandise** exported and imported was £E.54,134,000 (increase of £E.5,246,000). The value of the **imports** was £E.26,121,000, and of the **exports** £E.28,013,000. The **cotton** crop produced between 6,500,000 and 7,000,000 ḳanṭârs. Some 12,152 men were employed in guarding the Nile banks for a period under 100 days. It was decided to raise the Aswân Dam five metres at a cost of £E.1,500,000. This work is done and it is now possible to irrigate 1,000,000 acres of waste land in the north of the Delta. The irrigation works proposed this year were estimated to cost £20,000,000. In December the British and Egyptian Governments decided to liberate the Danshawâi prisoners, and they were pardoned and set free by H.H. the Khedive, on his birthday, January 8th, 1908. The imports from Great Britain and British Possessions amounted to £E.9,792,735. **Education** cost £E.374,000.

A.D. 1908. In February Musṭafâ Kâmil Pâsha, the leader of the Nationalist Party and proprietor of the newspaper *Al-Lewa, i.e., The Flag*, died aged 34 years. Early in May Mr. Scott-Moncrieff, a Deputy-Inspector of the Blue Nile Province, was murdered at Tugr, a village between Masallamîyah and Kamlîn, by ‘Abd al-Ḳader Muḥammad Imâm Wâd Habûba, leader of a rebellion

against the Government. On May 8th the accused was tried at Kamlîn in the Mûdir's Court, and was sentenced to death and to the forfeiture of his property. His execution was carried out on May 17th at Hillat Mustafa, the market village of his tribe, the Halawîn. The **revenue** was £E.15,522,000 and the **expenditure** £E.14,408,000; **surplus** £E.1,114,000. The **cotton** crop produced 6,250,000 ḳanṭârs, valued at £E.17,091,603; area under cultivation 1,640,415 acres. 27,000 men were called upon to guard the Nile banks for 100 days. **Education** cost £E.440,000. **Imports** were valued at £E.25,100,397, the proportion supplied by Great Britain being 38 per cent. **Exports** were valued at £E.21,315,673, of which Great Britain took 53 per cent., valued at £E.15,359,586. The value of the eggs exported was £E.75,589.

A.D. 1909. The Press Law was enforced with moderation; one paper was suppressed, and the editor of another, the *Lewa*, or *Flag*, was sentenced to three months' imprisonment. The **cotton crop** was considerably below the average of recent years. In April, petroleum was discovered at Râs Gamîsah, a place on the Red Sea, 160 miles south of Suez. The proposal made by the Suez Canal Company to the Egyptian Government for an extension of its concession for 40 years after 1968, during which period the profits of the undertaking were to be equally divided between the Government and the Company, was rejected by the General Assembly. The **revenue** in 1909 was £E.15,402,000, and the **expenditure** £E.14,241,000, leaving a **surplus** of £E.1,161,000.

The cotton exported was 6,952,000 ḳanṭârs, value £E.21,478,000; cotton-seed, 3,308,000 ardabs, value £E.2,433,000. The capital value of the railways was £E.25,293,000.

The Khârgah Oasis Railway was purchased by the Government for £E.125,000, *i.e.*, one-half its cost. M. Legrain finished the re-erection of the columns of the temple of Karnak which fell down in 1899, a portion of the temple of Asnâ was cleared, the restoration of Dêr al-Madînah was begun, and many of the temples in Nubia were repaired.

A.D. 1910. The **revenue** was £E.15,965,000, and the total **expenditure** was £E.14,414,000; the **surplus** was £E.1,551,000.

The value of the **imports** was £E.23,553,000, an increase of 6 per cent. on those of 1909. The value of the **exports** was £E.28,944,000, an increase of 11 per cent. **Cotton** was exported to the amount of **6,009,400 ḳanṭârs**, valued at **£E.24,242,000.** **Cotton seed** shows a decrease of 19 per cent. in quantity and 11 per cent. in value; in 1909 about 3,308,000 ardabs, value £E.2,433,000, were exported, and in 1910 about 2,673,000 ardabs, value £E.2,160,000. The **onion crop** brought in £E.264,000. The area under **cotton cultivation** was 1,603,266 faddâns, as against 1,465,187 faddâns in 1909. The number of pupils in the schools was 202,095; of these 17,609 were girls.

On July 12, Sir Eldon Gorst, H.B.M.'s Agent at Cairo, died after a long and painful illness. This distinguished servant of the Crown gave the best years of his life, and devoted his great ability to promoting the welfare of Egypt. In the autumn of the year Lord Kitchener became Agent, and at once inaugurated a series of important reforms. Under his guiding hand the Egyptians declared themselves neutral, and looked on whilst Italy invaded Tripoli and Cyrenaica. The quarrels which took place between the Copts and Muslims early in the year died down, and political feeling became more calm as the people realized that they had a firm friend in Kitchener. The experiment of handing over local education to the Provincial Councils proved a great success; and the schools contained 45,173 boys, 5,500 girls, besides 10,000 boys in the Higher Schools. In purely agricultural districts Kitchener introduced a half-time system of education with good results. The conversion of the basins to perennial irrigation was completed. **Revenue** was £E.16,793,000 and **Expenditure** £E.14,872,000; **Imports** £E.27,227,000, **Exports** £E.28,599,000. The **Cotton exported** (6,638,210 ḳanṭârs) was valued at £E.22,988,100. In Schools under Government inspection there were 211,485 pupils, and in the higher primary schools, 5,592 pupils.

A.D. 1911.

Before Turkey had ratified peace with Italy on the question of Tripoli she became at war with the allied Balkan and Greek States. The Egyptians remained neutral, but showed their sympathy by establishing a Red Crescent Society, and by maintaining it liberally. In the early part of the year a handful of fanatical persons made a plot

A.D. 1912.

to assassinate prominent officials in the country, and seditious literature was imported by them from abroad, but the leader of them was arrested and tried and sent to prison. In this year Kitchener introduced the so-called "Five Faddân Law." Its object was to protect the small farmer of five faddâns (or acres) and under, against expropriation of his land, house, and farming utensils for debt. Another good law was the Cantonal Justice Law, which established notables as unpaid magistrates in small areas of a few villages only. On December 23, H.H. the Khedive laid the last stone of the heightened Aswân Dam. Main roads were made between Cairo and Alexandria and Cairo and Ḥelwân. The biennial session of the General Assembly took place in the early part of the year, and the Khedive stated that the Government were considering the question of the improvement of the representative institutions of the country. **Revenue** £E.17,515,000, **Expenditure** £E.15,470,000, **Imports** £E.25,907,759, **Exports** £E.34,574,321. **Total area under Cotton** 1,721,815 faddâns, crop, 7,500,000 ḳanṭârs. Sugar crop, 1912–13, 965,000 tons. The **Bûlâḳ Bridge** and the bridge over the Baḥr al-Aama were opened to traffic in July, 1912, cost £E.530,000. An **Egyptian Museum** was established on Elephantine Island, and a **Coptic Museum** at Fusṭâṭ.

In spite of an abnormally low Nile great tranquillity prevailed in Egypt. Two new ministries were created, one for Agriculture, and one for the administration of religious endowments (Waḳûf), and a new Legislative Assembly was established. By means of Provincial Councils and Local Commissions, and Mixed Municipalities, the Government strove to increase the number of those citizens who were summoned to help to administer the country. Kitchener asserted in his Report that the ova of bilharziasis had been recently discovered in the tissues of mummies of the XXth dynasty. The Commission appointed to report on the debts of the fallâḥîn owning five faddâns or less found that their total debt amounted to £E.15,000,000. **Revenue** £E.17,368,000, **Expenditure** £E.15,729,000, **Imports** £E.27,865,195, **Exports** showed a decrease of 8·89 per cent. **Area under Cotton**, 1,722,094 faddâns, crop 7,554,000 ḳanṭârs. **Sugar crop**, 741,000 tons. **Museums** were established at Ṭanṭâ, Minyâ, and Asyûṭ. **Education.**—The number of pupils in schools directly under the Ministry was 27,864, and 253,295 in schools under its inspection.

A.D. 1913.

There were about 750 Egyptian students in England and France. This year the Egyptian Government sold 40,000 faddâns of the Fayyûm Estates; there were 4,800 buyers of plots of five faddâns and under, 1,330 of plots of 5 to 20 faddâns, 201 of plots of 25 faddâns, and 80 of more than 50 faddâns. The originator of this scheme was Lord Kitchener.

When the War broke out in 1914 Martial Law was declared in Egypt, and there was no disturbance either in Egypt or the Sûdân. Australian and New Zealand troops were disembarked to strengthen the garrison, and to ensure the safety of the Suez Canal. On November 18, a British Protectorate over Egypt was proclaimed, and as the Khedive 'Abbâs II had declared himself an enemy of the Allies he was deposed on December 19th, and the suzerainty of Turkey came to an end. Prince Ḥusên Kamâl, a descendant of Muḥammad 'Alî, was proclaimed Sulṭân of Egypt on the same day. Sir A. H. McMahon succeeded Lord Kitchener as High Commissioner. **Revenue** £E.15,389,124, **Expenditure** £E.16,857,783. The outbreak of war, just at the moment when the cotton crop of 1914 was about to be harvested, caused a crisis in the cotton market and reduced the price by at least one-third. This resulted in unemployment on a large scale, reduced consumption, and debts could not be paid. The Government made the notes of the National Bank of Egypt legal tender and incontrovertible, and a moratorium was proclaimed. In some cases the Government bought the cotton, and in others advanced money on the crop to assist cultivators. Prof. Maspero, Director of the Service of Antiquities, retired on October 6th.

A.D. 1914.

In January the Turks assembled large forces on the east side of the Suez Canal with the intention of seizing the Canal and destroying it. The British troops fell back from the frontier line and drew on the Turks who made their attack on the southern half of the Canal on February 2nd and 3rd. Their army of 12,000 was defeated and they retreated hurriedly on the 3rd, leaving 500 dead on the sand, and 600 prisoners in the hands of the British. On April 8th and July 9th the Sulṭân of Egypt was attacked by fanatics, who wished to kill him, but their attacks only led to their own execution. In the course of the year enemy propagandists turned the friendship of the Senussi for Egypt into enmity, and on December 25th about 3,000 Arabs attacked the Egyptian forces near Maṭrûḥ, where they were utterly defeated

A.D. 1915.

and retired into the desert in great disorder. **Revenue** £E.17,759,418, **Expenditure** £E.16,594,666, **Surplus** £E.1,164,752. The combined efforts of forced economy, the recovery in the price of cotton, and military expenditure, brought Egypt once more out of her troubles.

A.D. 1916. The defeat of the Senussi in December, 1915, only served to exasperate them, and on January 23rd and February 26th they tried conclusions with the Anglo-Egyptian forces near Sollûm. Though led by German and Turkish officers, the Arabs were again and again defeated, and on March 14th the British occupied Sollûm. Much sporadic fighting took place early in the year in the Eastern Desert between the Turks and the British, but on August 4th a great battle was fought between them in the Peninsula of Sinai. The Turkish Army of 18,000 men was utterly defeated and lost 1,300 killed and 4,000 prisoners. The British occupied the frontier town of Al 'Arîsh on December 21st. For several years, 'Alî Dînâr, Sulṭân of Dâr Fûr, had been causing the Sûdân Government much trouble. As it was impossible to tolerate his rebellion any longer the Sirdar concentrated a force at Nâhûd in Western Kordôfân, and on May 22nd Col. Kelly defeated 'Alî Dînâr and his army of 3,000 men, and on the following day occupied Al-Fashar. 'Alî Dînâr died on November 6th, and his country became a province of the Anglo-Egyptian Sûdân. **Revenue** £E.19,927,274, **Expenditure** £E.17,240,606, **Surplus** £E.2,686,668. In December General McMahon retired, and he was succeeded as High Commissioner by Sir Reginald Wingate.

† On June 5th was drowned Lord Kitchener, Sirdar of the Egyptian Army and Governor-General of the Sûdân, High Commissioner of Egypt, &c. Throughout Egypt and the Sûdân his name was a household word among the people, and the news of his loss was received with unaffected sorrow. A memorial service was held in the Cathedral at Kharṭûm, and was attended by a large gathering representative of every class of the native community. In April H.R.H. the Prince of Wales visited the Sûdân, and he was received with a warm welcome and deep appreciation by the people everywhere. Prof. Maspero died in Paris on June 28th.

A.D. 1917. An era of great prosperity now dawned upon Egypt, for **Revenue** rose from £E.19,927,274 in 1916–17 to £E.23,166,074 in 1917–18. Though the **expenditure** also rose enormously (from

£E.17,240,606 in 1916–17 to £E.22,496,948 in 1917–18) there was a surplus of £E.669,126. And the enemy at her gates was being repulsed. The Senussi were driven out of the Oasis of Sîwah, the Turks had to abandon a portion west of Shallâl, they were defeated in the desert to the north of Gaza and Al-'Arîsh was lost to them. General Allenby captured Beersheba on October 31st, and took 2,000 prisoners and 13 guns; Gaza fell on November 7th, Junction Station was captured on November 14th, Jaffa was occupied on November 16th, and at noon on December 9th, the enemy **surrendered Jerusalem.** Between October 31st and December 9th over 12,000 prisoners were taken, 100 guns of various calibres, 20,000,000 rounds of rifle ammunition and 250,000 rounds of gun ammunition. On December 11th, General Allenby made his official entry into Jerusalem. On December 26th and 27th the enemy made great attempts to recapture the city, but failed and in failing suffered a crushing defeat. The Egyptians had time to think of education, and the establishment of a State University was proposed. The English authorities decided to build an Anglican Cathedral in Cairo, and the Sulṭân Ḥusên Kamil contributed £E.1,000 towards the cost. In May locusts appeared and did a great deal of damage in a short time, but the plan of catching the young locusts in trenches and burning them succeeded admirably and the pest was soon destroyed. The Sulṭân died on October 9th and was succeeded by his brother Fuad I (born March 26th, 1868). M. Legrain, the famous excavator of Karnak, died this year suddenly.

A.D. 1918. A year of less prosperity with a **Revenue** of £E.22,900,000 and **Expenditure** of £E.23,250,000. Just before the cotton harvest all the silver currency of the country disappeared as if by magic, and on July 5th the Government was obliged to issue notes to the value of 5 piastres. During the second half of the year General Allenby matured his plans for the overthrow of Turkish power in Palestine and Syria, and his great attack on the Turks began on September 19th. He captured Nazareth and 2,000 prisoners on the 20th, crossed the Jordan on the 22nd, took 'Akka (Acre) and Haifa on the 23rd, and was in possession of Damascus at 6 a.m., October 1st.

A.D. 1919. The wealth of the country continued to increase, the **Revenue** being £E.27,661,289 and the **Expenditure** £E.28,850,000, in other words, Egypt was able to spend more than $10\frac{1}{2}$ millions (£E.) than she could spend in

1914–15. This increased expenditure was forced upon the Government by circumstances arising directly and indirectly out of the war. In 1918 a spirit of discontent and unrest pervaded all classes, and it was as strong among the fallâḥîn as among the "Effendi" classes. In 1919, owing to various causes that need not be repeated here, this spirit of discontent found expression in many unpleasant forms. The Nationalist agitators organized riots in Alexandria, Cairo, Ṭanṭâ, Manṣûrah, and Zaḳâziḳ, where a Republic was declared, and the mob seized the town of Ziftah. Time after time the troops had to fire on the crowds, and there were many deaths in consequence. The fallâḥîn of the Nile valley were joined by many of the nomad tribes of Arabs of the Western Desert, and they attacked the Oases and Madînat al-Fayyum and besieged Asyûṭ and Bani Suwêf, and destroyed much property. Railways were torn up, and stations burned, and telegraphs destroyed, and troops had to be sent from Kharṭûm to garrison Aswân, British officers were murdered in trains from Luxor to Asyûṭ, and from Asyûṭ to Minyâ, and they were attacked in the streets of Cairo and Ḳalyûb in broad daylight. Eight British soldiers were murdered at Dêr Mawâs. General Allenby arrived in Cairo on March 25th and issued a proclamation which had a certain effect, but it was not till towards the close of the year, when he was appointed High Commissioner, that he was able to get the situation in hand. His proclamation of November 15th did much to allay the agitation, which was as much the result of economic as political causes. Though money had been pouring into the country in an unprecedented fashion there was great want and misery among the poorer classes in the towns, and great numbers of men could find no employment. Those who were employed could not live on their wages owing to the rise in the prices of provisions and other commodities, due to a widespread scarcity. The Government raised the wages of their employees, but strikes broke out in all directions, and syndicalism was openly preached. The Governors of the Suez Canal had foreseen all this, and had already raised the salaries of all their men, increased their holidays, given them sick pay, and arranged to pay them a two per cent. bonus on the profits of the Canal (*see* Sir Ian Malcolm in the *National Review* for May, 1921). In December Lord Milner arrived in Egypt to investigate the causes of political unrest, and to discuss the claims of the Nationalists with their leaders, and to report to the British Government.

The Milner Commission got to work, and though it was well

known that the British Government were in sympathy with some of the demands of the Nationalists and other would-be reformers, the extremists continued to stir up riots in Alexandria, Manṣûrah, Zaḳâziḳ, Cairo, and Luxor. Bombs were thrown at several ministers, and much damage was done to railway property. A large post-office was robbed, the Luxor–Cairo express also was robbed, and soldiers and officials were attacked and shot. Strikes on a large scale occurred from time to time, among the strikers being the tram-way men and men at the gas works. The Government made every effort possible to improve the condition of its servants, and both in 1919 and 1920 they spent about £E.5,000,000 in additions to salaries, wages, and allowances on account of the higher cost of living. Those who were not in Government employment suffered greatly through the high prices of wheat, lentils, maize, sugar, native butter, soap, coals, wood, fodder for horses, cattle, &c. Meanwhile the well-to-do Egyptian was investing largely in British War Securities, French and Italian Loans, and Egyptian Government Stocks and Shares ; and it is computed that the sum of money so invested cannot be less than £E. 150,000,000 (Egypt No. 1, 1920). The Bank Note issue rose from £E.8,250,000 in 1914 to £E.67,300,000 in 1919. **Revenue** for 1920–21 was estimated at £E.40,271,000 and the **Expenditure** at £E.40,271,000. In July the American Presbyterian Board decided to establish a University in Cairo, and in December the Right Rev. L. Gwynne was enthroned as Bishop of the diocese of the Sûdân and Red Sea.

A.D. 1920.

In order to carry out the schemes for regulating the water supply of the Nile Valley, the Sûdân Government applied to the British Government for a loan of £6,000,000. It was shown by experts that this sum was insufficient, but the British Government agreed to lend only £6,000,000 and resisted the attempt to increase the loan from £6,000,000 to £9,500,000. It was proposed: 1. To build a barrage across the Rift Valley at the north end of Lake Albert, to store an incalculable bulk of water ; 2. to build a dam at Gabal Awlîyah, about 30 miles south of Kharṭûm, to work in connection with the Aswân Dam, and irrigate 1,900,000 acres ; 3. to build a weir at Makwar on the Blue Nile, near Sennaar, to irrigate another 1,000,000 acres. Owing to the world-wide rise in the price of material and labour the original estimates were considerably exceeded, and in May the authorities in the Sûdân had to stop all the irrigation work there owing to want

A.D. 1921.

of money. In the same month riots broke out in Alexandria owing to disputes between Adly Pâshâ, the Egyptian Premier, and Zaghlûl Pâshâ, the Nationalist Leader, who called for the abolition of the British Protectorate forthwith. On the 22nd and 23rd rioting began in Cairo and Alexandria, and in the latter place shops were looted, houses set fire to, and 56 people were killed and 200 injured. British troops were called out and order was restored.

Throughout the month of June the factions headed by Adly Pâshâ and Zaghlûl Pâshâ disputed acrimoniously, and each leader laid the blame for the riots and disturbances at the door of the other Little by little the best natives in Egypt came over to the side of Adly Pâshâ, and arrangements were made for him and a number of his ablest supporters to go to London to discuss there with the British Government exactly what measure of independence could be given to the Egyptians. Zaghlûl Pâshâ was not among those whom Adly selected to accompany him to London, and his friends complained bitterly of the treatment meted out to him by his political antagonist. Adly Pâshâ's mission arrived in London on July 14th, and a day or two later negotiations between the Egyptians and British Ministers began at the Foreign Office. The results of their discussions were not published when this book went to press. During the summer the Governor-General of the Sûdân and his Financial Secretary visited London with the view of persuading the British Government to increase their loan to the Sûdân.

11. Sketch of the History of the Arabs, and of Muḥammad and his Ḳur'ân, Religious Beliefs, etc.

The **home of the Arabs** is the peninsula of Arabia, which is about 1,450 miles long and 700 wide; the greater part of the country is desert and mountain, and only in the south-west portion of it are perennial streams found. The Arabs are Semites, and the modern descendants of them trace their origin to the Hebrews through Kâhtân, who is identified with Joktan, the son of Eber, and to Adnân, the direct descendant of Ishmael, the son of Abraham and Hagar. The kingdoms of Yaman and Hijâz were founded by Yârab and Yorhom, sons of Kâhtân. The provinces of Sâba and Hadhramaut were ruled by princes of the tribe of Himyar, whose kingdoms lasted two or three thousand years. In the third century before Christ a terrible calamity befell the Arabs, for the great

dam which Sâba, the builder of Sâba and Mâreb, built to hold up the rain water and mountain springs suddenly burst, and the widespread ruin brought by the flood which was thus let loose on the plains caused eight great Arab tribes to leave their country. The water is said to have been held up to a height of about 180 feet, and the people felt so sure of the security of the dam that they built their houses upon it. In the second century after Christ the Arabs migrated northwards and established petty kingdoms at **Palmyra*** and **Al-Hîrah,**† and came at times into conflict with the Roman authorities in Syria and with the Persian powers in eastern Mesopotamia. The **Arabs of Palmyra embraced Christianity** in the time of Constantine, but those of Al-Ḥîrah did not accept it until after A.D. 550; the Arabs of the desert, however, continued to be for the most part idolaters. The rule of the Himyâr princes came to an end in the first half of the sixth century of our era, when the king of Ethiopia overthrew a base usurper called Dhu-Nuwâs, who inflicted tortures of the worst description on the Christians, and who is said to have destroyed 20,000 of them; the Ethiopian rule was of short duration, for before the end of the century the Persians were masters of the country. Strictly speaking, the Arabs, as a nation, have never been conquered, and no ruler has ever been able to make his authority effective in all parts of their dominions.

In pre-Muḥammadan times, which the Arabs call "Jâhilîyah," جَاهِلِيَّة, *i.e.*, the "epoch of ignorance," their religion was the grossest idolatry, and the dominant phase of it was the religion of **Sabaism.** They believed in One God, but worshipped the stars, planets, and angels. They prayed three times a day, and fasted three times a year; they offered up sacrifices, they went on a pilgrimage to a place near Harran, and they held in great honour the temple at Mecca, and the Pyramids of Egypt, believing these last to be the tombs of Seth and of his sons Enoch and Sabi. Three great powers worshipped by the whole nation were **Lât**, **Al-Uzza**, and **Manât**; the Ḳur'ân (Koran) mentions five very ancient idols, viz., **Wadd, Sawâ'â, Yaghûth, Ya'ûḳ, and Nasra.** The first of these had the form of a **man,** the second that of a **woman,** the third that of **a lion,** the fourth that of a **horse,** and the fifth that of an **eagle.** Sabaism taught that the souls

* The Arabs of Palmyra were descended from the tribe of Azd.

† The Arabs of Al-Hîrah were descended from Kâhtân.

of the wicked will be punished for 9,000 ages, but that after that period they will obtain mercy. Many Arabs, however, believed neither in the creation nor in the resurrection, and attributed all things to the operations of nature. **Magianism,** of Persian origin, found many followers in Arabia, but **Judaism** and **Christianity** exerted a profound influence upon the religion of the Arabs. The Arabs prided themselves upon their skill in oratory and in making poetry, and in the arts of war, and they made a boast of their hospitality; but they always had the character of being fierce, cruel, and vindictive, generous to friends, but implacable to foes, and addicted to robbery and rapine.

Muḥammad, commonly known as the **Prophet,** was **born** at Mecca on August 20th, A.D. **570;** his mother was called Âmĭnah, and his father 'Abd-Allah, and his ancestors were men of high rank in the city of Mecca, many of them holding offices in connection with the temple there. His parents were poor, and Muḥammad's inheritance consisted of five camels, a flock of goats, and a slave girl. He was suckled by Thuêbah and Ḥalîmah, and reared by his grandfather 'Abd al-Muṭṭalib, and was instructed in the trade of merchant by his uncle Abû Ṭâlib. At the age of six his mother took him to Madînah, but on the way home she died; at the age of 12 (A.D. 582) Abû Ṭâlib took him to Syria. At the age of 20 he visited the Fair at Okas, three days to the east of Mecca, where he heard the great Arab poets declaim their compositions, and met numbers of Christians and Jews. In 595 he began to do business as a merchant on behalf of **Khadîjah,** a wealthy lady of the Koreish tribe, and his trafficking was successful; soon after his return from Syria this lady, who was about 40 years of age, determined to marry him, and the ceremony was performed by Khadîjah's father, whom she had made drunk for the purpose. By this marriage he had two sons and four daughters. In **605 the great Ka'abah was built,** and the lot fell upon Muḥammad to build the famous **Black Stone** into its eastern corner, where it may be kissed by all who visit it. When he arrived at the age of 40 he began to formulate a system for the reform of the religion of the Arabs, and he became convinced that he was destined by God to carry out that reform. At times, however, he was very despondent, and he often meditated suicide, from which Khadîjah dissuaded him. About this time he declared that Gabriel appeared to him and entrusted to him the divine mission of reforming the religion of the Arabs.

When Muḥammad was 45 years old he had collected a sufficiently large number of influential converts about him to provoke great opposition and persecution in and about Mecca, and in 615 his **First Hijrah**, or "flight," to Abyssinia took place. At this time Muḥammad relaxed his exertions somewhat, for he became doubtful about the value of his mission, and seemed to be willing to tolerate the worship of idols. In December, 619, his beloved wife Khadîjah died, aged 70, and about a month later Abû Ṭâlib, his uncle, also died, and in the midst of these afflictions Muḥammad had the vexation of seeing that his converts were not increasing in number. In 620 he set out to call Taif to repentance, but he was expelled from the city: a few weeks later he married a widow called **Sawdah**, and betrothed himself to **'Aishah**, the daughter of Abû Bakr, a child of six or seven years of age. In the same year Muḥammad made converts at Madînah, a city which lies about 250 miles to the north of Mecca, and on June 20th, A.D. 622, the year on which the Arabs base their chronology, the **Second Hijrah**, or "flight," to Madînah took place. He arrived in that city on June 28th, and at once began to build a mosque on the spot where his camel Al-Kaswah had knelt down. At the age of 53 he married **'Aishah**, aged 10, and it is said that the bride carried her toys to her husband's house, and that at times he joined in her games. In 623 he ceased to pray towards Jerusalem, and ordered his followers to **pray towards the Ka'abah** at Mecca; in this year the battle of Badr was fought, in which he vanquished his opponents in Mecca. In 624 his power and influence continued to grow, and he married **Ḥafsah**, the daughter of 'Omar. In 625 was fought the battle of Uhud, in which Muḥammad was wounded, and a number of powerful Jews were expelled from Madînah.

In January, 626, he married **Zênab**, the daughter of Khuzêma, and a month later **Umm-Salmah**, the widow of Abd-Salmah; in June he married **Zênab bint-Jahsh**, who was divorced by her husband Zêd, the adopted son of Muḥammad, and later in the year he married a seventh wife, called **Juwêrya.** In 627 Madînah was besieged, and the Bani-Kurêba were massacred, and Muḥammad's power and influence continued to increase; the people of Mecca then began to come to terms with him. In 628 he despatched letters to **Heraclius**, and to the king of Persia, and to the governors of Yaman, Egypt, and Abyssinia, calling upon them to

acknowledge the divine mission of Muḥammad. In the same year he betrothed himself to **Umm-Habûbah,** and conquered Khêbar, where he married **Safia,** the bride of Kinâna; and the Jews bribed a sorcerer to bewitch Muḥammad by tying knots of his hairs upon a palm branch, which was sunk in a well, and he is said to have begun to waste away. But the Archangel Gabriel revealed the matter to him, and when the branch had been taken out of the well and the hairs untied he recovered his health. Soon after this he went to Mecca and married **Mêmûnah,** and his power increased in the city; in 630 he conquered the city and destroyed the idols, and was successful in many raids which he made upon the tribes who had not acknowledged his divine mission. At this time George the Maḳawḳas sent to him from Egypt two sisters, called Shirîn and **Maryam** (Mary); the latter Muḥammad married, and she bore him a son called Ibrâhîm, who, however, died in June or July, 631. In this year many tribes sent envoys to Muḥammad tendering their submission, and among them were men who represented the Christian Arabs; the answer given to the latter proves that Muḥammad only tolerated the Christian religion, and that he expected the children of Christians to be brought up in the faith of Al-Islâm. In 632 Muḥammad ordered an expedition against Syria, but he died early in the month of June.

In personal appearance he was of medium height, and he had an upright carriage until his later years, when he began to stoop, and he walked fast. He laughed often, and had a ready wit and a good memory; his manners were pleasing, and he was exceedingly gracious to inferiors. Of learning he had none, and he could neither read nor write. He was slow and dignified of speech, and prudent in judgment. He was not ashamed to mend his own clothes and shoes, and his humility was so great that he would ride upon an ass. He ate with his thumb and the first and second fingers, and he greatly liked bread cooked with meat, dates dressed with milk and butter, pumpkins, cucumbers, and undried dates; onions and garlic he abhorred. His garments were of different colours, but he loved white, although he was very fond of striped stuffs; it is said that he once gave 17 camels for a single garment. His hair was long, like his beard, but he clipped his moustache; he painted his eyelids with antimony, and greatly loved musk, ambergris, and camphor burnt on sweet-smelling woods. His life was simple, but his disposition was sensual, and his polygamous inclinations sorely tried the convictions of his

followers. He was a staunch friend to his friends, and a bitter foe to his enemies, whom he often treated with great cruelty; he had the reputation for sincerity, but at times he behaved with cunning and meanness; his urbanity hid a determination which few realized, and the sword was the real cause of the conversion of the nations to his views. The religion which he preached was, and is, intolerant and fanatical, and, although it has made millions of men believe in One God, and renounce the worship of idols, and abhor wine and strong drink, it has set the seal of his approval upon the unbridled gratification of sensual appetites, and has given polygamy and divorce a religious status and wide-spread popularity.

Al-Ḳur'ân * (the **Koran**, or **Coran**) is the name given to the revelations or instructions which Muḥammad declared had been sent to him from God by the Archangel Gabriel. During the lifetime of Muḥammad these revelations were written upon skins, shoulder-bones of camels and goats, palm leaves, slices of stone, or anything which was convenient for writing upon, and then committed to memory by every true believer; they thus took the place of the poetical compositions which the Arabs had, from time immemorial, been accustomed to learn by heart. It is tolerably certain that copies of the revelations were multiplied as soon as they were uttered by the Prophet, and their number must have been considerable. On the death of the Prophet, the Arabs of the south revolted, and Abû-Bakr was obliged to suppress the rebellion with a strong hand, but the false prophet Musailima had many adherents, and the fight was fierce and bloody, and many of those who best knew the Ḳur'ân were slain. At this time the various sections of the book were not arranged in any order, and 'Omar, fearing that certain sections might be lost, advised Abû-Bakr to have all the revelations gathered together into one book. This was A.D. 633. By Abû-Bakr's orders, a young man called Zêd ibn-Thâbit, who had been Muḥammad's secretary and had learned Syriac and Hebrew, was entrusted with the task, and he collected the sections from every conceivable source, and made a fair copy of them in the order in which they have come down to us. This copy was given by 'Omar, the successor of Abû-Bakr, to his daughter Ḥafsah, one of the widows of the Prophet. Before long, however, variations sprang up in the copies which were made from that of Ḥafsah, and these variations became so numerous, and caused

* The word means "the reading," or "what ought to be read."

such serious disputes, that the Khalîfah 'Othmân ordered Zêd ibn-Thâbit and three men of the Koreish tribe to prepare a new recension of the Ḳur'ân. At length the new recension was finished, and copies were sent to Kûfah, Baṣrah, Damascus, Mecca, and Madînah, and all the pre-existing versions were ruthlessly burnt. Ḥafsah's copy was restored to her, but it was afterwards destroyed by Marwân, the governor of Madînah. The Arabs regard the language of the Ḳur'ân as extremely pure, and incomparable for beauty and eloquence; it is also thought to be under God's special protection, and therefore to be incorruptible. To explain the existence of slight variations, it was declared that the book was revealed in seven distinct dialects.

The Ḳur'ân contains 114 sections, each of which is called a *sûrah;* some were revealed at Mecca, and others at Madînah, and others were revealed partly at Mecca and partly at Madînah. The number of verses in the whole book is given as 6,000, or 6,214, or 6,219, or 6,225, or 6,226, or 6,236, according to the authority followed; the number of words is said to be 77,639 or 99,464; and the number of letters 323,015 or 330,113, for, like the Jews,* the Arabs counted the letters of their Scriptures. At the head of each section, after the title, come the words, "In the Name of God, the Merciful, the Compassionate," which formula, Sale thinks, was borrowed from the Magians. That Muḥammad, assisted by his friends, composed the Ḳur'ân is certain, yet his followers declare that the first transcript of it existed in heaven, written upon the **Mother of the Book,** also called the **Preserved Table** or Tablet, from all eternity, and that it subsists in the very essence of God. A copy on paper was sent down to the lowest heaven by Gabriel, who revealed it to the Prophet piecemeal, but showed him the whole book, bound in silk and set with the gold and precious stones of Paradise, once a year. Hence the Ḳur'ân is held in the greatest reverence by the Muḥammadans, who are said never to touch it unless they are ceremonially pure.

The Muḥammadans divide their religion, which they call "**Islâm,**" into two parts, *i.e.*, *Imâm*, **faith,** or theory, and *Dîn*, religion, or **practice;** it is built on five fundamental points, one belonging to faith and four to practice. The confession of faith is, "There is no god but God," and

* The number of times which each letter occurs in the Hebrew Bible will be found in the *Massoreth ha-Massoreth* of Elias Levita (ed. Ginsburg), p. 271 *ff.*

"Muḥammad is the Apostle of God." Under the division of **Faith** the Arabs comprehend:—(1) Belief in God; (2) in his Angels; (3) in His Scriptures; (4) in His Prophets; (5) in the Resurrection and Day of Judgment; (6) in God's absolute decree and predetermination both of good and evil. The four points of **Practice** are:—(1) Prayer and ablutions; (2) alms; (3) fasting; (4) pilgrimage to Mecca.

1. The **belief in God** is thus expressed: "Say, God is one God; the eternal God: he begetteth not, neither is he begotten: and there is not any one like unto him" (*Surah* cxii).

2. The **Angels** are beings of light who neither eat nor drink, and who are without sex; they are without sin, and perform God's behests in heaven and upon earth, and adore Him. There are **four Archangels,** Gabriel, Michael, Azraêl, the angel of death, and Isrâfêl, the angel who will sound the trumpet at the end of the world. Every believer is attended by two angels, one writing down his good actions and the other his evil actions; the guardian angels are variously said to be 5, 60, or 160. The angels **Munkar** and **Nakîr** examine the dead, and torture the wicked in their graves. The **Jinn** were created before Adam, and are beings of fire, who eat and drink and marry; they include Jann, Satans, 'Afrîts, and Mârids. The head of them is **'Azâzêl** or **Iblîs,** who was cast out of heaven because he refused to worship Adam.

3. The **Scriptures** are the uncreated word of God which He revealed to His Prophets; of these alone remain, but in a corrupt state, the Pentateuch of Moses, the Psalms of David, the Gospels of Christ, and the Ḳur'ân, which surpasses in excellence all other revelations. Ten books were given to Adam, 50 to Seth, 30 to Enoch, and 10 to Abraham, but all these are lost.

4. The **Prophets** are in number 124,000 or 224,000, of whom 313 were Apostles; among the Apostles of special importance are Adam, Noah, Abraham, Moses, Jesus Christ, and Muḥammad, who is declared to be the last, and greatest, and most excellent of them all. It is admitted that Christ is the Word of God, and the Messiah, but the Muḥammadans deny that He is the Son of God.

5. Resurrection and Day of Judgment. When the body is laid in the grave two angels, called **Munkar and Nakîr,** appear there, and make the dead man sit upright, and question him as to his faith; if the answers are satisfactory he is allowed to rest in peace, but if not the angels beat him on the

temples with iron maces, and having heaped earth upon the body, it is gnawed by 99 dragons, each having seven heads. All good Muḥammadans have their graves made hollow and two stones placed in a suitable position for the two angels to sit upon. The souls of the just when taken from their bodies by the angel of death may be borne to heaven, but various opinions exist on this point. Some think that the souls remain near the graves either for seven days or for a longer period; others think they exist with Adam in the lowest heaven; others that they live in the trumpet which is to wake the dead; and others that they dwell in the forms of white birds under the throne of God. The souls of the wicked, having been rejected by heaven and by this earth, are taken down to the seventh earth, and thrown into a dungeon under a green rock, or under the Devil's jaw, where they will be tortured until called upon to rejoin their bodies. Muḥammadans generally believe in the resurrection both of the body and of the soul. All parts of the bodies of the dead will decay except the cuckoo bone (coccyx), wherefrom the whole body shall be renewed, and this renewal shall take place through a rain of 40 days, which shall cover the earth to a depth of 12 cubits, and cause the bodies to sprout like plants.

The time when the resurrection is to take place is known only to God. The first blast of the trumpet will shake heaven and earth; the second will cause all living creatures to die, the last being the angel of death; and the third, which is to take place 40 years after the second, will raise the dead, Muḥammad being the first to rise. The **general resurrection** will include animals. Some say the day of judgment will last 1,000 years, and others 50,000; the place of judgment will be the earth, and Muḥammad is to be the intercessor with God on behalf of man. A book wherein is written an account of his actions will be given to each man, and all things will be weighed in a balance; the judgment over, the souls of the good will turn to a road on the right, and those of the bad to a road on the left. All will, however, have to pass over the bridge As-Sirât, which is laid over the midst of hell, and is finer than a hair, and sharper than the edge of a sword; the good will have no difficulty in passing over this, but the wicked will fall from it and meet their doom in Gehenna, which is divided into seven storeys, one below the other. Between hell and paradise is a partition or gulf which is not, however, so wide that the blessed and the damned cannot discourse together.

The blessed will drink out of a lake, the water of which comes from **Paradise,** and is whiter than milk, and sweeter in smell than musk. Paradise was created before the world, and is situated above the seven heavens, near the throne of God; its earth is made of fine wheat flour, or musk, or saffron; its stones are pearls; its walls are inlaid with gold and silver; and the trunks of all its trees are of gold. Therein is the **Ṭûbah tree,** laden with every kind of fruit, and it will supply the true believer with everything he needs, *i.e.*, meat, drink, raiment, horses to ride, etc. The rivers flow with milk, wine, and honey, and the fountains are innumerable. The women of Paradise, the Ḥûr al-'uyûn (*i.e.*, women with large eyes, the pupils of which are very dark, or black, and the whites of which are very white and clear), who will be given to the believers, are made of pure musk, and are free from all the defects of earthly women; they live in hollow pearls, which are 60 miles long, and 60 miles wide. The beings in Paradise will never grow old, and they will always remain in the prime and vigour of a man 30 years of age; when they enter Paradise they will be of the same stature as Adam, *i.e.*, 60 cubits, or 110 feet high. Women who have lived good lives upon earth will live in Paradise in an abode specially set apart for them.

6. **Predestination.**—God's decree, whether concerning evil or good, is absolute; and whatever hath come or will come to pass hath been irrevocably fixed from all eternity. A **man's fate** cannot, either by wisdom or foresight, be avoided.

Concerning the four points of practice:—

1. **Prayer** and **ablutions.**—Prayer is the prop of religion and the key of Paradise, and the pious Muḥammadan prays at least five times a day:—**(1)** Between daybreak and sunrise; **(2)** in the early afternoon; **(3)** in the afternoon before sunset; **(4)** in the evening after sunset; and **(5)** before the first watch of the night. Notice is given from the mosques of the times of prayer daily, because the day begins with sunset, the time of which changes daily, and every believer is expected to prepare for prayer as soon as he hears the voice of the crier from the mosque. The prayers recited are those ordained by God and those ordained by the Prophet; some are said sitting, some standing upright, and some with the head bent. Before praying a man must wash his hands, mouth, nostrils, face, and arms, each three times, and then the upper part of the head, the beard, ears, neck, and feet, each once. Muḥammad is said to have declared that "the practice of religion is founded

on cleanliness," which is one half of the faith and the key of prayer, without which it will not be heard by God; and also that "there could be no good in that religion wherein was no prayer." When praying the Muḥammadans **turn the face towards** the temple at **Mecca,** and in mosques and public inns the direction of that city is always indicated by a niche which is called **Ḳiblah** or **Miḥrâb,** and all prayer is held to be in vain unless it be said with a humble, penitent, and sincere heart. Muḥammadans never pray clad in fine clothes, nor do they pray in public with women.

The Muḥammadan, having turned his face towards Mecca, stands with his feet not quite close together, and, raising his open hands on each side of his face, he touches the lobes of his ears with the ends of his thumbs and says the **takbîr,** *i.e.*, "Allahu Akbar," "God is most Great." He next proceeds to recite the appointed prayers. Standing, he places his hands before him a little below the girdle, the left within the right, and, keeping his eyes fixed on the ground where his head will touch it when he kneels, he recites the opening chapter of the Ḳur'ân, and after it three or more verses, or some short chapter. He next says, "God is most Great," and makes at the same time an inclination of his head and body, placing his hands upon his knees, and separating his fingers a little. In this position he says, "[I extol] the perfection of my Lord the Great," three times, and adds, "May God hear him who praiseth Him! Our Lord, praise be unto Thee." He then raises his head and repeats, "God is most Great." Dropping upon his hands he says, "God is most Great," and, placing his hands upon the ground, a little before his knees, he puts his nose and forehead also to the ground, between his two hands. During his prostration he says, "[I extol] the perfection of my Lord the Most High," three times. He then raises his head and body, sinks backwards upon his heels, and places his hands upon his thighs, saying, at the same time, "God is most Great," which words he repeats as he bends his head a second time to the ground. During the second prostration he repeats the same words as in the first, and in raising his head again, he utters the *takbîr* as before. Thus the prayers of one "bowing" are ended.

He who prays must take care not to move the toes of his right foot from the spot where he first placed them, and the left foot must be moved as little as possible. For the next "bowing" he rises on his feet, still keeping the toes of his

right foot on the same spot, and repeats the same words, but after the opening chapter of the Kur'ân he must recite a different chapter. After every second "bowing," and after the last, still kneeling, he bends his left foot under him and sits upon it, and places his hands upon his thighs, with the fingers a little apart. He then says, "Praises are to God, and prayers, and good works. Peace be on thee, O Prophet, and the mercy of God, and His blessings. Peace be on us, and on [all] the righteous worshippers of God." Then raising the first finger of the right hand he adds, "I testify that there is no god but God, and I testify that Muhammad is His servant and Apostle." After the last "bowing" the worshipper, looking upon his right shoulder, says, "Peace be on you, and the mercy of God," and looking upon the left he says the same words. Before these salutations the worshipper may offer up any short petition, and as he does so he looks at the palms of his two hands, which he holds like an open book before him, and then draws over his face, from the forehead downwards. He who would acquire special merit remains seated, and repeats the following beautiful section of the second chapter (verse 256) of the Kur'ân:—"God! There is no god but HE, the Living One, the Self-existing One. Neither slumber nor sleep seizeth Him. To Him belongeth whatsoever is in heaven and upon earth. Who is he that can intercede with Him, except through His good pleasure? He knoweth that which hath been, and that which is to come unto them, and they shall not comprehend anything of His knowledge, except in so far as He pleaseth. His throne is extended over the heavens and the earth, and the preservation of both is no burden unto him. He is the High, the Mighty." After this he says, "O High, O Mighty, Thy perfection [I extol]." He then repeats the words, "the perfection of God," 33 times, and says, "The perfection of God the Great, with His praise for ever," once; he then repeats "Praise be to God," 33 times, and says "Extolled be His dignity; there is no god but HE" once; he then repeats "God is most Great," 33 times, and says "God is most Great in greatness, and praise be to God in abundance," once. The worshipper counts these repetitions by means of a string of beads, 99 in number.

The prayer which is said on the night preceding the fifteenth day of **Sha'bân**, the eighth month, is one of considerable interest, and the occasion for it is one of great importance to all Muhammadans, and is observed with great solemnity. The

Muslims believe that in one portion of Paradise there grows a tree which bears as many leaves as there are people in the world, and that on each leaf is the name of a human being. On the night of the 15th of Sha'bân this tree is shaken by some means just after sunset, and the leaves whereon are the names of those who are to die in the ensuing year fall to the ground. The prayer, usually recited after the XXXVIth Chapter of the Ḳur'ân, which treats of the Resurrections, in Mr. Lane's translation is as follows:—"O God, O Thou Gracious, and Who art not an object of grace, O Thou Lord of Dignity and Honour, and of Beneficence and Favour, there is no deity but Thou, the Support of those who seek to Thee for refuge, and the Helper of those who have recourse to Thee for help, and the Trust of those who fear. O God, if Thou have recorded me in Thy abode, upon the **Mother of the Book,*** miserable, or unfortunate, or scanted in my sustenance, cancel, O God, of Thy goodness, my misery, and misfortune, and scanty allowance of sustenance, and confirm me in Thy abode, upon the Mother of the Book, as happy, and provided for, and directed to good: for Thou hast said (and Thy saying is true) in Thy Book revealed by the tongue of Thy commissioned Prophet, 'God will cancel what he pleaseth, and confirm; and with Him is the Mother of the Book.' O my God, by the very great revelation [which is made] on the night of the middle of the month of Shaabân the honoured, in which every determined decree is dispensed and confirmed, remove from me whatever affliction I know, and what I know not, and what Thou best knowest; for Thou art the most Mighty, the most Bountiful. And bless, O God, our lord Moḥammad, the Illiterate Prophet, and his Family and Companions, and save them."

The worshippers who go to say their midday prayers in the mosque on Friday arrange themselves in rows parallel to that side of the mosque in which is the niche, and face that side. Each man washes himself before he enters the mosque, and before he goes in he takes off his shoes and carries them in his left hand, sole to sole, and puts his right foot first over the threshold. Having taken his place he performs two "bowings," and remains sitting. The reader recites the XVIIIth Chapter of the Ḳur'ân until the call to prayer is

* *I.e.*, the **Preserved Tablet in Heaven,** on which are recorded all God's decrees, the destinies of all men, and the original copy of the Kur'ân; but some think that the "Mother of the Book" means the knowledge of God.

heard, when he stops; after the call to prayer is ended the men stand up and perform two "bowings." A servant of the mosque, the Muraḳḳi, then opens the folding doors at the foot of the pulpit stairs, and taking out a straight wooden sword, stands a little to the right of the doorway, with his right side towards the ḳiblaḥ, and holding the sword with his right hand with its point on the ground, says, "Verily God and His angels bless the Prophet. O ye who believe, bless him, and greet him with a salutation." Then one or more persons who stand on the platform opposite the niche say words similar to the following:—"O God, bless and save and beatify the most noble of the Arabs and Persians, the Imâm of Mecca and Al-Medînah and the Temple, to whom the spider showed favour, and wove its web in the cave; and whom the lizard saluted, and before whom the moon was cloven in twain, our lord Moḥammad and his Family and Companions." The Muraḳḳi then recites the call to prayer, followed by those on the platform, and before this is ended the Imâm, or the preacher, comes to the foot of the pulpit, takes the **wooden sword** from the Muraḳḳi's hand, ascends the pulpit, and sits on the top step of the platform. The Muraḳḳi then recites some traditional words of the Prophet, and having said to the congregation, "Be ye silent: ye shall be rewarded: God shall recompense you," sits down. The preacher (Khaṭîb) now rises, and holding the wooden sword (this is only done in countries which the Arabs have conquered by the sword), delivers his sermon, at the end of which he says, "Pray ye to God," and then sits down, when he and the whole congregation engage in private prayer. After this the men on the platform say, "Amen, Amen, O Lord of the beings of the whole world." When this is done the preacher preaches a second sermon, wherein, if necessary, petitions are offered up for an abundant inundation of the Nile, for rain, for success in battle, for a speedy and safe journey to Mecca when the pilgrimage is at hand, etc. In these days it is perhaps hardly necessary to point out that the Muḥammadans never pray to Muḥammad the Prophet, but to God, and God only.

2. **Almsgiving.**—Alms are of two kinds, obligatory and voluntary, and they are regarded as of great assistance in causing God to hear prayer; it has been said by one of the Khalîfahs that "prayer carries us half-way to God, fasting brings us to the door of his palace, and alms procure us admission." Alms are to be given of cattle, money, corn, fruits and

merchandise sold, and one-fortieth part must be given either in money or kind of everything received.

3. **Fasting.**—The three degrees of fasting are:—(1) The restraining of the lusts of the body; (2) the restraining of the members of the body from sin; and (3) the fasting of the heart from worldly cares, and compelling the mind to dwell upon God. The Muḥammadan must abstain from eating and drinking, and any physical indulgence, every day during the month of Ramaḍân from dawn until sunset, unless physically incapacitated; it is said that this month was chosen as the month for fasting because in it the Ḳur'ân was sent down from heaven. Strict Muḥammadans suffer nothing to enter their mouths during the day, and regard the fast as broken if a man smells perfumes, or bathes, or swallows his spittle, or kisses or touches a woman, or smokes; at and after sunset they eat and drink as they please.

4. **The Pilgrimage to Mecca.**—Every Muḥammadan must undertake a pilgrimage to Mecca at least once in his life, for Muḥammad is said to have declared that he who does not do so may as well die a Jew or a Christian. The object of the pilgrimage is to visit the **Ka'abah,** *i.e.*, the "square [building]," and perform certain ceremonies there. This building is rectangular, and the famous **Black Stone,*** set in silver, is built into its south-eastern corner; the stone measures 6 inches by 8, and is of a reddish-black colour. It is said to have fallen from Paradise to earth with Adam, and to have been miraculously preserved during the deluge, and given to Abraham by Gabriel when he built the Ka'abah. When a pilgrim has arrived near Mecca he removes his ordinary clothes and puts on a woollen tunic about his loins, and a woollen shawl about his shoulders, and very loose slippers. He then **goes round the Ka'abah seven times**, and each time he passes he must either **kiss the Black Stone** or touch it; he must next pass seven times between the low hills Ṣafâ and Merwâ, partly running and partly walking, in memory of Hagar's hurried steps as she wandered up and down seeking water for Ishmael; he must next go to Mount 'Arafat, near Mecca, and pray there and listen to a discourse until sunset; and the day following he must go to the valley of Mîna and cast seven stones at certain marks. This last act is the "stoning of the Devil," and is done in imitation of Abraham, who cast stones at the great Enemy because he

* A view of this stone is given in Sir William Muir's *Life o Mahomet*, p. 27.

tempted or disturbed him when praying while preparing to offer up his son Isaac. When the stoning is done the pilgrims slay animals in the valley of Mîna, and make a great feast, and give gifts to the poor, and when they have shaved their heads and pared their nails the pilgrimage is considered to have been performed. The various ceremonies of the pilgrimage described above are extremely ancient, and are admitted by the Muḥammadans to be the product of the "time of ignorance"; at one epoch each had a special signification, which may or may not have been understood by the Prophet. He, though wishing to do so, had no power to abolish them, but he certainly succeeded in depriving them of meaning, and now these rites have no signification whatever.

The Ḳur'ân prohibits the drinking of **wine** and all intoxicating liquors in these words:—"O true believers, surely wine, and lots, and images, and divining arrows are an abomination of the work of Satan; therefore avoid ye them, that ye may prosper"; and again, "They will ask thee concerning wine and lots: Answer, in both there is great sin, and also some things of use unto men; but their sinfulness is greater than their use." Strict Muḥammadans abjure the use of **opium** and **ḥashîsh**, or Indian hemp (*cannabis Indica*), which when taken in excess practically makes a man mad, and they are bidden to avoid all gaming and gambling, and divination and magic. Tobacco is used freely everywhere, and of course coffee, but many learned Muḥammadans have doubted the legality of the use of either of these. When not corrupted by intercourse with Western peoples, the Muḥammadans are probably the most abstemious people in the East. The duties of a man to his neighbour are laid down at length by Muḥammadan teachers, and in great detail, and we may see from the Ḳur'ân that the observance of most of the virtues beloved by Western nations is also strictly inculcated by them. In the matter of **Polygamy** and **Divorce**, however, their morality is exceedingly lax, and there is no doubt that the domestic habits of the Arab nations have seriously hampered their progress among the peoples of the earth. Muḥammad said, "If ye fear that ye shall not act with equity towards orphans [of the female sex], take in marriage of such [other] women as please you, two, or three, or four" (*Sûrah iv*); but the example which he himself set was an unfortunate one, and has been the cause of much misery to the Arabs. Among poor folk want of means is the great deterrent to polygamy, and many men, therefore,

marry only one wife; but the laws relating to divorce are so loose, that a man with money can generally find or buy an excuse for getting rid of his wife and for taking a new one. The children of concubines or slaves are held to be legitimate, and the Prophet did a good deed when he put a stop to the inhuman custom among the pagan Arabs of burying their daughters alive. It is said that the girl who was intended to die was allowed to live until she was six years old, when she was perfumed and dressed in fine raiment, and taken to a pit dug for the purpose; the father then stood behind her, and pushed her in, and had the pit filled up at once. The punishment for **Murder** is death, but it may, if all parties concerned agree, be compounded by the payment of money, and by the freeing of a Muḥammadan from captivity. **Manslaughter** may be compounded by a fine and by the freeing of a Muḥammadan from captivity. **Theft,** if the object stolen be worth more than £2, is punished by the loss of a member—for the first offence, the right hand; for the second, the left foot; for the third, the left hand; for the fourth, the right foot. In recent years beating and hard labour have taken the place of the punishment of mutilation. **Adultery** is punished by death by stoning if charge against the woman be established by four eye-witnesses; the extreme penalty of the law is, naturally, carried out but rarely. **Drunkenness** is punished by flogging. **Blasphemy** of God, or Christ, or Muḥammad, is ordered to be punished by death; the same punishment has been inflicted upon women for **Apostasy.**

The **Festivals** of the Muḥammadans are thus classified by Mr. Lane (*op. cit.*, vol. II, p. 145, *ff.*) :—

1. To the **first ten days of the month Muḥarram,** which is the first month of the Muḥammadan year, special importance is attached, and great rejoicing takes place in them; but of all days the tenth is the most honoured. Water which has been blessed is sold freely as a charm against the evil eye, and the Jinn are supposed to visit men and women by night during this period of ten days. On the tenth day of Muḥarram the meeting between Adam and Eve took place after they had been cast out of Paradise; on this day Noah left the ark, and the Prophet's grandson, Al-Ḥusên, was slain at the battle of Karbalah. The pagan Arabs fasted on this day, and many Muḥammadans follow their example, and it is unlucky to make a marriage contract in this month.

2. About the end of the second month (Ṣafar) the return of the **Mecca Caravan** is celebrated. When the main body of the Caravan is yet some days' journey distant, two Arabs, mounted on swift dromedaries, hurry on to the Citadel at Cairo to announce the day of its arrival. Many pious people go as much as a three days' journey to meet the Caravan, and carry with them gifts of raiment and food for the pilgrims, and donkeys on which certain of them may ride. When the Caravan arrives it is greeted with shouts of joy and music in honour of those who have returned, and weeping and wailing for those who have left their bones on the way. It is considered a most meritorious thing for a man or woman to die when making the "Ḥagg"* or Pilgrimage to Mecca, and many sick folk make arrangements to set out on the road to Mecca, full well knowing that they will die on the road. Some years ago, when the Indian pilgrims, who sailed from Bombay, were not so well looked after as they are now, the number of those who died on the ships and were buried at sea was considerable. The pilgrims bring back, as gifts for their friends, holy water from the Sacred **Well of Zamzam**, from which Hagar gave Ishmael water to drink, pieces of the covering of the Ka'abah, which is renewed yearly, cakes of dust from the Prophet's tomb, frankincense, palm fibres for washing the body, combs and rosaries of the wood of aloes, tooth sticks and eye paint. A prominent object in the Caravan is the **Maḥmil**, to which great reverence is paid. It is a square framework of wood with a pyramidal top; on the top, and at each corner, is a silver-gilt ball with a crescent. The framework is covered with black brocade, richly marked in gold, and ornamented with tassels; there is nothing inside the Maḥmil, but two copies of the Ḳur'ân, one on a scroll and one in book form, are attached to the outside of it. When the Maḥmil reaches the Citadel it is saluted with 12 guns.

3. At the beginning of Rabî'a-al-awwal (the third month) the Mûlid an-Nabi, or **Birthday of the Prophet**, is commemorated. The rejoicings begin on the third day of the month, and for nine days and nine nights the people indulge in singing and dancing and festivities of every kind, the streets are illuminated by night, and processions of Dervishes go about through the streets by day and by night. Mr. Lane once heard the sweetmeat sellers crying out when this festival was being celebrated, "A grain of salt in the eye of him who doth not bless the

* Thus pronounced in Egypt.

Prophet," probably a warning to Jews and Christians to keep away. He was also fortunate enough to see the Shêkh of the Sa'dîyah Dervishes ride over the bodies of a large number of them. Some 60 of these lay down upon the ground side by side as closely as possible, their backs being upwards, their legs extended, and their arms placed beneath their foreheads. None of the men were hurt, a fact which they attributed to the prayers which they had said the day before. This ceremony is called **Dosah,** and during its performance those trodden upon continued to utter the name "Allah," or God.

4. In the fourth month, Rabî' al-tâni, 15 days and 14 nights are spent in celebrating the festival of the **Mûlid al-Ḥasanên,** or the birthday of Al-Ḥusên, whose head is buried in the Mosque of the Ḥasanên.

5. In the middle of the seventh month, Ragab, the **birthday of Zênab**, the granddaughter of the Prophet, is celebrated; and on the 27th of the month the festival of the ascension of the Prophet is celebrated. He is said to have been carried from Mecca to Jerusalem, and from Jerusalem to heaven, and, having held converse with God, to have returned to Mecca in one night!

6. On the first or second Wednesday of the eighth month, Shaabân, the **birthday of Imâm Shafî'î** is celebrated, and the cemetery called the Karâfah becomes the scene of great festivities. Above the dome of the mosque of the Imâm a metal boat is placed, and it is said to turn about even in the absence of wind, and according to the direction in which it turns good or evil is foretold. The **eve of the fifteenth day** of this month is held in great reverence, because the fate of every man during the year ensuing is decided. The lote tree of Paradise contains as many leaves as there are human beings in the world, and on each leaf is written the name of a man or woman; shortly after sunset this tree is shaken, when numbers of its leaves fall, and those whose names are written on the fallen leaves will die in the ensuing year. Pious Muḥammadans pass this night in solemn prayer.

The ninth month, **Ramaḍân,** is observed as a month of fasting; when this month falls in the summer-time, Muḥammadans suffer greatly from both hunger and thirst. Mr. Lane calculates that the time during which the daily fast is kept varies from 12 hours 5 minutes to 16 hours 14 minutes. The effect of the fast upon the country is, practically, to turn night into day, for nearly all the shops are kept open at night, and

the streets are thronged, and the stranger sometimes finds it difficult to believe that the fasting is as rigorous as it undoubtedly is. The 27th night of the month is called the Lêlat al-Ḳadr, or "**Night of Power,**" and is held to be "better than a thousand months," for in it the Ḳur'ân is said to have been sent down to Muḥammad. On this night the angels bring blessings to the faithful, and as the gates of heaven are then open, it is believed that prayer will certainly find admission. Salt water is said to become sweet during that night, and some people keep a vessel of salt water before them and taste it evening after evening, that when it becomes sweet they may be certain that they are observing the Night of Power.

On the first three days of the tenth month, Shawwâl, the **Lesser Festival**, or **Ramaḍân Bairam,** is kept with great rejoicing; it marks the end of the fast of Ramaḍân. When friends meet in the street they embrace and kiss each other, and the women visit the graves of their relatives and lay broken palm-branches and sweet basil upon them; during this festival many put on new clothes, and presents of every kind are given and received by members of all classes.

A few days later the **Kiswah,** or Covering of the Ka'abah, followed by the Maḥmil, is conveyed from the Citadel, where it is manufactured at the Sulṭân's expense, to the Mosque of the Ḥasanên, and the occasion is looked upon by everyone as a festival. The Kiswah is of black brocade covered with inscriptions, and having a broad band at the edge of each side ornamented with inscriptions worked in gold; the covering and its band are each woven in four pieces, which are afterwards sewn together. The **Veil** which covers the door of the Ka'abah is made of richly worked black brocade, and is lined with green silk, while the Kiswah is only lined with cotton. A Covering and a Veil are taken to the Ka'abah yearly by the great Mecca Caravan, and the old ones, which have become spoiled by rain and dust, are cut up in pieces and sold to the pilgrims. On the 23rd of the month Shawwâl the procession of the officers and the escort of the Mecca Caravan pass from the Citadel through the streets of the metropolis to a plain to the north of the city called Ḥaṣwah (*i.e.*, pebbly); on the 25th it proceeds to the Birkat al-Ḥagg, or Pilgrim Lake, about 11 miles from the city, and on the 27th the Caravan starts for Mecca. The journey to Mecca occupies usually about 37 days, but those who like to travel leisurely take longer; this city is

about 45 miles from the sea coast, and is almost due east from Jiddah on the Red Sea.

On the 10th of the month Dhul-ḥiggah, *i.e.*, the month of the Pilgrimage and the last of the Muḥammadan year, the **Great Festival (Ḳurbân Bairâm)** begins; it is observed in much the same way as the Little Festival, and lasts three or four days.

Muḥammadan **sects.**—The Muḥammadans of Egypt and of many other parts of the Turkish Empire may be described as **orthodox (Sunnites)**, for they base their public and private life upon the teaching of Muḥammad, and upon the traditions handed down by his early disciples, and upon the decisions which they promulgated. Among these, however, there are four chief sects, the **Ḥanafites**, the **Shâfî'ites**, the **Malekites**, and the **Ḥambalites**, which, though agreeing as regards fundamentals of faith, differ in matters of detail. Speaking generally, the Ḥanafites may be said to follow their own opinions in many matters of faith instead of those of the Prophet, while the other three sects follow the traditions of Muḥammad. The founders of the sects were Abu Ḥanîfah, born at Kûfah, A.H. 80; Shâfî'î, born at Gaza or Askelon, A.H. 150; Malik, born at Madînah about A.H. 94; and Ḥambal, born either at Merv or Baghdad. The **heterodox** among the Arabs are called **Shî'ites**, and are regarded with detestation by the **Sunnites**, or traditionalists, who declare that they may just as well not be Muḥammadans at all, because they are doomed to eternal punishment. Among the heterodox some rejected all eternal attributes of God; others disputed about the essence of God; others declared that God could not have made unbelievers; others held that there were two Gods, the one, the most high God, being eternal, and the other, Christ, being non-eternal; others denied everlasting punishment; others said that God could be a liar; others denied the absoluteness of predestination, and endowed men with free-will; others distinguished the attributes of God from His essence; others taught anthropomorphism pure and simple, and ascribed to God a material body; and, within a comparatively short time after the death of the Prophet, **Ṣûfism**, or the doctrine of Divine love, with which were mingled mysticism and asceticism, attained great influence over the minds of the Persian Muḥammadans, who are chiefly Shî'ites, and its followers became a very large sect.

The **Mahdî.**—From what has been said above it will be evident to the reader that the Arabs were always divided into sects which disputed among themselves about questions of

religion, especially about those which savoured of mysticism and dogma. When the Arabs embraced the doctrines of Muḥammad the Prophet, they carried into their new religion many ideas, and beliefs, and customs, which even that masterful man was unable to set aside. Muḥammad the "illiterate," as his followers love to call him, permitted them to believe whatever did not interfere with the supremacy of his own views, and he himself borrowed most of his doctrines and mythology from the Jews and Christians and Persians. In Judaism and Zoroastrianism there was a common idea that the world had fallen into an evil condition, that religion had been corrupted, that all men were exceedingly wicked, and that only a supernatural being, who was to come at the end of time, could put all things right; this being the Jews called the **Messiah**, and the Persians **Sushyant**; the Jews said he was to be the son of David, and the Persians said he was to be the son of Zoroaster. Muḥammad the Prophet admitted that Jesus Christ was a prophet, and declared Him to be the greatest of the prophets of the old dispensation; but regarded Him as inferior to the line of prophets of which he himself was the first, and said He would only be the servant, or vicar, of the supernatural personage who was to come in the last days, and who was to right all things, namely, the **Mahdî.** The word Mahdî means he who is directed (or led) [by God]. According to Muḥammad, Jesus was sent to destroy Antichrist and convert Christians to the religion of Islâm! The Mahdî was to be a descendant of the Prophet through 'Alî, the cousin of Muḥammad, who had given him his daughter Fâtima to wife.

When the Persians were conquered by the Arabs they accepted the religion and doctrines of the Prophet, but they adopted the view that his legitimate successor (Khalîfah) was his son-in-law 'Ali, and that the first three khalîfahs, Abû-Bakr, 'Omar, and 'Othman were impostors, who had seized the Khalifate by intrigue. Thus the Muḥammadan world was, and still is, split up into two great parties, the **Sunnites**, or "traditionalists," who acknowledge the first three Khalifahs, and the **Shî'ites**, or **Imâmians**, who reject them. 'Alî was declared to be divine by his adherents even during his lifetime, and when he and his sons Ḥasan and Ḥusên had been murdered by the 'Omayyad usurpers, his life and deeds appealed in a remarkable manner to the imagination of the Persians, and, remembering that the Prophet had declared that the Mahdî should spring from his own family, they accepted and promulgated the view that he

was to be among the descendants of 'Alî. There have been many who assumed the title of "Mahdî," but the first of these was "Muḥammad, the son of the Hanafite," *i.e.*, the son of 'Ali by another wife, and he was practically made to adopt it by a cunning man called Mukhtâr. Mahdî after Mahdî appeared in the Muḥammadan world, but when the eleventh Imâm had come to an end, that is to say, had been murdered —the true Mahdî was to be the twelfth—and left no successor, men began to fall into despair. At the end of the eighth century a schism among the Shî'ites took place, and a large, wealthy body of men, who called themselves **Ismaelites** (from Ismâîl, the son of Ja'fâr), left them; the leader of the new sect was a Persian dentist called **'Obêdallâh**, who sent messengers to Arabia and the north of Africa to announce the advent of the Mahdî, *i.e.*, himself. 'Obêdallâh, moreover, declared himself to be a descendant of 'Alî, and with this prestige in 908 he succeeded in founding a dynasty in North Africa, having overthrown the reigning Aghlabite king there. He also founded the city of Mahdîya. In 925 'Obêdallâh attempted to overrun Egypt, but he was defeated, and it was not until 969 that the Fâṭimids succeeded in conquering Egypt, which they did under Jôhar, the general of Mu'izz, the great-grandson of 'Obêdallâh, who founded the city of Cairo and assumed the title of Khalîfah. Thus a Mahdî made himself master of nearly all North Africa and of Egypt, and his dynasty ruled the last-named country for well-nigh 200 years (A.D. 972–1172). The next great Mahdî was Muḥammad ibn-Tûmurt, of the tribe of Masmûdah, and a native of Morocco, whose followers, known by the name of "Almohades," conquered Spain and ruled it during the twelfth century. The idea of the Mahdî still lives in Northern Africa, and without taking into account the Mahdî of the Senussi, who always calls himself "Muḥammad al-Mahdî," it is said that there is always a Mahdî waiting to declare himself to the Muḥammadan world. In 1666 a Mahdî called Sabbatai Zevi made his appearance in Turkey, but he disgraced himself by submitting to become a servant of the Sulṭân Muḥammad IV. Another appeared at Adrianople in 1694, but he was eventually exiled to Lemnos. In 1799 a Mahdî from Tripoli appeared in Egypt, but he was killed in a fight with the French at Damanhûr.

Muḥammad Aḥmad, the Mahdî who in recent years set the Sûdân in a blaze, was born near Donḳola between 1840 and 1850; his father's name was 'Abd-allâhi, and that of his mother

Âminah. Thus Aḥmad's parents bore the same names as those of the Prophet. His family were boat builders on the White Nile, and he worked at the same trade when a boy. When 12 years of age he knew the Ḳur'ân by heart, and when 22 years old he settled down in the island of Abba in the White Nile, and meditated there for 15 years. He lived in a hole in the ground, and fasted and prayed, and his reputation for sanctity spread over the whole country; his followers and disciples increased so fast and in such numbers that at length he declared himself to be the Mahdî. Like his predecessors he sent forth envoys to all parts to declare his divine mission. In 1881 he and his Dervishes cut to pieces 200 soldiers who had been sent to seize him; and a few months later, at the head of 50,000 rebels, he defeated and slew at Gabal Gaddîr nearly 7,000 Egyptian troops. These victories gave him a reputation for invincibility, and thousands of men in all parts of the Sûdân could not help believing in his pretensions when they saw city after city fall into his hands. Few now doubted that he was the twelfth and last Imâm, and his adoption of the Shî'ite views, and his calling his followers by the Persian name "Darwîsh,"* made men to assume the heavenly character of his work. On November 5th, 1883, he annihilated Hicks Pâshâ's army, and Al-'Ubêd and the neighbouring country fell into the Mahdî's hands. On December 19th Slatin Pâshâ surrendered to him, and on January 15th, 1884, the valuable province of Dâr Fûr became a part of the rebel's kingdom.

In February General Gordon arrived in Kharṭûm on his fatal mission, having on his way thither, unfortunately, told the Mûdir of Berber and the Amir of Matammah that he was going to remove the Egyptian garrisons; this became noised abroad, and many people, when they learned that the Egyptian Government was going to abandon the Sûdân, joined the Mahdî. Thus fate played into the Mahdî's hands. The next city to fall was Berber, Gordon's troops having been defeated on March 16th. On October 23rd the Mahdî arrived in Omdurmân, being well aware of Gordon's desperate condition through the correspondence which had been captured in the steamer "Abbâs." This unfortunate steamer was wrecked on the Fourth Cataract, and Colonel Stewart was betrayed and murdered there; all letters and papers found in the baggage were sent to the Mahdî. On Sunday night, January 25th, the

* دَرْوِيش, a mendicant monk.

Mahdî attacked Kharṭûm and entered the town, and a little before sunrise on Monday (26th) General Gordon was murdered; and in a few days 50,000 Dervishes looted the town and destroyed 10,000 men, women, and children. As a proof of the admiration for General Gordon felt by even his bitterest foes, it is sufficient to quote a common saying in the Sûdân, "Had Gordon been one of us, he would have been a perfect man." After the capture of Kharṭûm no one doubted the divine mission of the Mahdî, and his word and power became absolute. He now gave himself up to a life of ease and luxury. He who had professed himself satisfied with *one* coarse garment, and had lived in a hole in the ground, and slept upon a straw mat, and fasted and well-nigh starved himself, now dressed himself in shirts and trousers of silk and in the daintiest fabrics of the East, and lived in a large, fine house, and slept upon the best bed that Kharṭûm could produce, and ate dainties and drank immoderately. Father Ohrwalder tells us that he had his clothes perfumed before he put them on, and that his wives anointed his body with the expensive unguent called "Sandalia," musk, and the oil of roses. He had four lawful wives, and an unlimited number of concubines, among whom were representatives from almost every tribe in the Sûdân; with these were a number of little Turkish girls of eight years of age, for the Mahdi's sensuality spared no one. He would recline in his house on a splendid carpet, with his head on a pillow of gold brocade, with as many as 30 women in attendance upon him; some would fan him with great ostrich feathers, others would rub his hands and feet as he slept, and 'Aishah, his chief wife, would cover his head and neck with loving embraces. His blessing was sought for by tens of thousands of men and women, and the earth touched by his foot was held to be holy. His life of ease, however, was his undoing, and a few months after the fall of Kharṭûm he became ill, and his disease progressed with such rapidity that he died on June 22nd, 1885, some say of heart disease, others of poison. When the Mahdî died his sway was absolute over about 2,000,000 square miles of north-east Africa, and his dominions reached from the Baḥr al-Ghazâl to Wâdî Ḥalfah, and from Dâr Fûr to the Red Sea. The Mahdî was a tall, broad-shouldered man, strongly built, and of a light brown colour; his head was large, and he wore a black beard. His eyes were black and sparkling, his nose and mouth were well shaped, and he had a V-shaped aperture between his two front teeth (called *Falja*), which is always

regarded as a sign of good luck in the Sûdân; on each cheek were the three slits seen on faces everywhere in the Sûdân.

The Mahdî's successor was Sayyid 'Abd-Allâhi, the son of Muḥammad al-Taki, a member of the Taaishah section of the Baḳḳârah tribe, and he was a native of the south-western part of Dâr Fûr; he is commonly known, however, as the **Khalîfah,** which he was specially appointed to be by the Mahdî. As brief notices of the defeats of his generals and of his own defeat and death are given elsewhere they need not appear here. He is described by Slatin Pâshâ as having been a powerfully built man of a suspicious, resolute, cruel, tyrannical, vain disposition, hasty in temper, and unscrupulous in action. His belief in his own powers was unbounded, and he took the credit for everything that succeeded. He had four legal wives and a large number of concubines, who were kept under the charge of a free woman; at intervals he held a sort of review of all his ladies, and dismissed numbers of them as presents to his friends. His chief wife was called **Sahrah**, with whom he quarrelled on the subject of food; she wished him to keep to the kind of food which he ate in his early days, and he wished to indulge in Egyptian and Turkish dishes. Twice he gave her letters of separation, and twice he revoked them.

Birth, Marriage, and **Death** among the Muḥammadans.—When a child is born, the call to prayer must be pronounced in his right ear by a male as soon as possible, for only by this can the child be preserved from the influence of the evil spirits. The father names the boy, and the mother the girl; no ceremony takes place at the naming of children. A surname is often added indicating relationship, or a title of honour, or the origin, family, birthplace, sect, or trade; a surname of any kind usually follows the proper name. When about two years old a boy's head is shaved, but two tufts of hair are left, one on the crown and another on the forehead; girls' heads are rarely shaved. Young children of well-to-do people are often dressed like those of beggars, and their faces are rarely washed, because the parents fear lest the **Evil Eye** be cast upon them. Boys* are circumcised at the age of five or six years, and the ceremony is usually made an occasion of joyful display. The boy is dressed as a girl, and wears a red turban, and rides a horse, and frequently covers part of his face with the idea of warding off the glance of the Evil Eye. The barber's servant

* Strabo remarks, *τὰ γεννώμενα παιδία καὶ τὸ περιτέμνειν καὶ τὰ θήλεα ἐκτέμνειν*; Bk. xvii, 2, § 4, Didot's edition, p. 699.

who carries his master's sign (*i.e.*, the *ḥaml*, which is a wooden case, with four short legs, ornamented with pieces of looking-glass, and embossed brass), and a few musicians, walk in front of the house. In purely Muḥammadan schools the education of boys is very simple; they learn to declare the unity of God and their belief in Muḥammad as His Prophet, to hate Christians, to read parts or the whole of the Ḳur'ân, the Ninety-Nine Beautiful Names of God, and sometimes they learn writing and arithmetic. In learning the Ḳur'ân, the beautiful introductory chapter (Fâtiḥah) is first committed to memory, then the last chapter, then the last but one, and so on backwards until the second is reached; the reason of this being that the chapters successively decrease in length from the second to the last. Formerly the girls who could read or write were very few, and hardly any even learned to say their prayers. Certain fanatical Muḥammadans will hardly allow girls or women to touch the Ḳur'ân, and on the borders of Persia the writer bought manuscripts of the book from widows who had wrapped them in cloth and buried them under their houses, because they regarded them as too sacred for them to handle.

Marriage.—Among the Muḥammadans it is thought to be the duty of every man possessing sufficient means to marry. Girls are betrothed at the age of seven or eight years, a few are married at 10, but many not until 12 or 13; few remain unmarried after the age of 16. Marriages are arranged by a go-between, the deputy of the bride, and by the relatives of the parties, and as long as the girl is quite a child, her parents may betroth her to whom they please. The amount of the dowry varies from £10 to £50, according to the position of the parties, and the dowry of a widow, or divorced woman, is less than that of a maiden. Two-thirds of the dowry are paid immediately before the marriage contract is made, and the remaining third is held in reserve to be paid to the wife in the event of her husband's divorcing her against her consent, or of his death. The marriage takes place in the evening about eight or ten days after the contract has been made, and the day usually chosen is Thursday or Sunday. On the Wednesday or Saturday the bride is conducted to the bath, and is accompanied by her friends and relatives, and musicians; she walks under a canopy of silk, which is open in front, but she herself is covered with a Kashmîr shawl of some bright colour. After the bath she returns to her house, and that evening the nails of her hands and feet are stained yellow

with henna. The same evening the bridegroom entertains his friends lavishly, and the next day the bride goes in state from her home to his house, and partakes of a meal. At sunset the bridegroom goes to the bath, and a few hours later to the mosque, after which he is escorted to his house by friends and relatives bearing lamps, and by musicians. Marriage ceremonies may be elaborate or simple, according to the taste or position of the bride or bridegroom, and if a woman merely says to a man who wishes to marry her, "I give myself to thee," even without the presence of witnesses, she becomes his legal wife. Usually a man in Egypt prefers to marry a girl who has neither mother nor any female relative. A part of the house is specially reserved (ḥarîm) for women, *i.e.*, wife or wives, daughters, and female slaves, so that these may not be seen by the male servants and strange men unless properly veiled. A Muḥammadan may possess four wives and a number of female slaves, and he may rid himself of a wife by merely saying, "Thou art divorced." He may divorce a wife twice, and each time receive her back without further ceremony, but he cannot legally take her back again after a third divorce until she has been married to and divorced by another man; a triple divorce may be conveyed in a single sentence. Mr. Lane (*Modern Egyptians*, vol. 1, p. 231), commenting on the depraving effects of divorce upon the sexes, says that many men, in a period of 10 years, have married 20 or 30 wives, and that women not far advanced in age have been known to be wives to a dozen or more men successively. The abuse of divorce among the lower classes in Egypt is perhaps the greatest curse of the country, and its mental, moral, and physical effects are terrible.

Death.—As soon as a man dies, the women begin to lament loudly, and often professional wailing women are sent for to beat their tambourines and utter cries of grief; the relatives join them in their cries, and with dishevelled hair beat their faces and rend their garments. If a man dies in the morning he is buried before night, but if he dies in the afternoon or later he is not buried until the next day. The body is carefully washed and sprinkled with rose-water, etc., the eyes are closed, the jaw is bound up, the ankles are tied together, the hands are placed on the breast, and the ears and nostrils are stopped with cotton. The style and quality of the cere-cloths vary with the position and means of the deceased: when dressed the body is laid upon a bier and

covered with a Kashmîr shawl. The funeral procession is composed of six poor men, mostly blind, who walk slowly and chant, "There is no god but God, and Muḥammad is the Apostle of God. God bless and save him!" Next come the male friends and relatives of the deceased; then two or more Dervishes, with the flags of the sect to which they belong; then three or four schoolboys, one of whom carries upon a palm-stick desk a copy of the Ḳur'ân covered with a cloth, singing a poem on the events of the Last Day, the Judgment, etc. Next comes the bier, borne head-foremost, and then the female mourners; the bier is carried by friends in relays of four into a mosque, and is set down in the place of prayer, so that the right side of the body may be towards Mecca; both men and women from the procession enter the mosque, and prayers are then said ascribing majesty to God, and beseeching mercy for the dead. In the longest prayer the leader of prayer says, "O God, verily this is Thy servant and son of Thy servant: he hath departed from the repose of the world, and from its amplitude, and from whatever he loved, and from those by whom he was loved in it, to the darkness of the grave, and to what he experienceth. He did testify that there is no deity but Thee alone; that Thou hast no companion; and that Muḥammad is Thy servant and Thine Apostle; and Thou art all-knowing respecting him. O God, he hath gone to abide with Thee, and Thou art the best with whom to abide. He hath become in need of Thy mercy, and Thou hast no need of his punishment. We have come to Thee supplicating that we may intercede for him. O God, if he were a doer of good, over-reckon his good deeds; and if he were an evil-doer, pass over his evil-doings; and of Thy mercy grant that he may experience Thine acceptance; and spare him the trial of the grave, and its torment; and make his grave wide to him; and keep back the earth from his sides; and of Thy mercy grant that he may experience security from Thy torment, until Thou send him safely to Thy Paradise, O Thou most merciful of those who show mercy!" (Lane's translation.)

After the other prayers have been said, the leader in prayer, addressing those present, says, "Give your testimony respecting him," and they reply, "He was of the virtuous." The bier is then taken up, and the procession re-forms in the same order as before, and the body is taken to the grave. In the case of well-to-do people the grave is an oblong brick vault,

which is sufficiently high to allow the deceased to sit upright when being examined by the two angels Munkar and Nakîr; over the vault a low, oblong monument is built, having an upright stone at the head and foot. On the stone at the head are inscribed the name of the deceased, the date of death, and a verse from the Ḳur'ân. The body is taken from the bier, its bandages are untied, and it is then laid in the vault on its right side with the face towards Mecca; a little earth is gently laid upon the body, and the vault is closed. But the pious Muḥammadans have imagined it to be possible for the deceased to forget what he ought to say when the angels Munkar and Nakîr come to examine him; therefore, in many cases, an instructor of the dead takes his seat near the tomb after the body has been laid therein, and tells the deceased what questions he will be asked and what answers he is to make. After the burial, food and drink are distributed among the poor, who come in large numbers to the burial of a man of means and position. The soul is thought to remain with the body on the night of burial, and afterwards to depart to its appointed place to await the day of doom. Men do not wear mourning in any case, but women dye their garments blue with indigo as a sign of grief, for everyone except an old man; they also leave their hair unplaited, and omit to put on certain of their ornaments.

The **Fâtiḥah.**—As mention has been made above of the Fâtiḥah, the opening chapter of the Ḳur'ân, a version of it is here given: "In the Name of God, the Merciful, the Gracious. Praise be unto God, the Lord of the worlds, the Merciful, the Gracious, the Ruler of the day of judgment. Thee do we worship, and of Thee do we beg assistance Direct us in the right way, in the way of those to whom Thou hast been gracious, upon whom there is no wrath, and who have not erred." It is to the Muḥammadans what the Lord's Prayer is to Christians.

The **Call to Prayer,** which is usually sung from the gallery of the minaret (Arab, *manârah*) by the mueddin of the mosque, is as follows: "God is great. God is great. God is great. God is great. I bear witness that there is no god but God. I bear witness that there is no god but God. I bear witness that Muḥammad is the Apostle of God. I bear witness that Muḥammad is the Apostle of God. Come to prayer. Come to prayer. Come to security. Come to security. God is great. God is great. There is no god but God." At certain large

mosques two other calls to prayer are cried during the night, the first a little after midnight, and the second about an hour before daybreak.

Mr. Lane's renderings of these "calls" are as follows:—

I. "There is no deity but God, there is no deity but God, there is no deity but God alone. He hath no companion; to Him belongeth the dominion; and to Him belongeth praise. He giveth life, and causeth death; and He is living, and shall never die. In His hand is blessing [*or*, good]; and He is almighty. There is no deity but God, there is no deity but God, there is no deity but God, and we will not worship any beside Him, serving Him with sincerity of religion, though the infidels be averse [thereto]. There is no deity but God. Moḥammad is the most noble of the creation in the sight of God. Moḥammad is the best prophet that hath been sent, and a lord by whom his companions became lords; comely; liberal of gifts; perfect; pleasant to the taste; sweet; soft to the throat [*or*, to be drunk]. Pardon, O Lord, Thy servant and Thy poor dependant, the endower of this place, and him who watcheth it with goodness and beneficence, and its neighbours, and those who frequent it at the times of prayers and good acts, O Thou Bountiful:—O Lord, O Lord, O Lord. Thou art He Who ceaseth not to be distinguished by mercy; Thou art liberal of Thy clemency towards the rebellious; and protectest him; and concealest what is foul; and makest manifest every virtuous action; and Thou bestowest Thy beneficence upon the servant, and comfortest Him, O Thou Bountiful:—O Lord, O Lord, O Lord. My sins, when I think upon them, [I see to be] many; but the mercy of my Lord is more abundant than are my sins; I am not solicitous on account of good that I have done; but for the mercy of God I am most solicitous. Extolled be the Everlasting. He hath no companion in His great dominion. His perfection [I extol]: exalted be His name: [I extol] the perfection of God."

II. "[I extol] the perfection of God, the Existing for ever and ever. [I extol] the perfection of God, the Existing for ever and ever. [I extol] the perfection of God, the Existing for ever and ever, the perfection of God, the Desired, the Existing, the Single, the Supreme: the perfection of God, the One, the Sole: the perfection of Him Who taketh to Himself, in His great dominion, neither female companion, nor male partner, nor any like unto Him, nor any that is disobedient,

nor any deputy, nor any equal, nor any offspring. His perfection [be extolled]: and exalted be His name. He is a Deity Who knew what hath been before it was, and called into existence what hath been; and He is now existing as He was [at the first]. His perfection [be extolled]: and exalted be His name. He is a Deity unto Whom there is none like existing. There is none like unto God, the Bountiful, existing. There is none like unto God, the Clement, existing. There is none like unto God, the Great, existing. There is none like unto God, the Great, existing. And there is no deity but Thou, O our Lord, to be worshipped, and to be praised, and to be desired, and to be glorified. [I extol] the perfection of Him Who created all creatures, and numbered them, and distributed their sustenance, and decreed the terms of the lives of His servants; and our Lord, the Bountiful, the Clement, the Great, forgetteth not one of them. [I extol] the perfection of Him, Who, of His power and greatness, caused the pure water to flow from the solid stone, the mass of rock: the perfection of Him Who spake with our Lord Moosa [*or*, Moses] upon the mountain; whereupon the mountain was reduced to dust, through dread of God, Whose name be exalted, the One, the Sole. There is no deity but God. He is a just Judge. [I extol] the perfection of the First. Blessing and peace be on thee, O comely of countenance: O Apostle of God. Blessing and peace be on thee, O first of the creatures of God, and seal of the apostles of God. Blessing and peace be on thee, O thou Prophet; on thee and on thy Family, and all thy Companions. God is most Great, God is most Great, God is most Great, God is most Great. I testify that there is no deity but God. I testify that there is no deity but God. I testify that Moḥammad is God's Apostle. I testify that Moḥammad is God's Apostle. Come to prayer. Come to prayer. Come to security. Come to security. God is most Great. God is most Great. There is no deity but God. O God, bless and save and still beatify the beatified Prophet, our lord Moḥammad. And may God, Whose name be blessed and exalted, be well pleased with thee, O our lord El-Ḥasan, and with thee, O our lord El-Ḥoseyn, and with thee, O Aboo Farrag, O Sheykh of the Arabs and with all the favourites of God. Amen."

Muḥammadan **Calendar.**—The Muḥammadans reckon their era from July 16th, 622, *i.e.*, the day following the Flight (*Al-Hijrah*) of the Prophet from Mecca to Madînah. Their year is lunar, and always consists of 12 lunar months, beginning

with the approximate new moon, without any intercalation to keep them in the same season with respect to the sun, so that they retrograde through all the seasons in about 32½ years. Their years are divided into cycles of 30 years, 19 of which contain 354 days, and the other 11 are intercalary years, having an extra day added to the last month. The mean length of the year is 354 days 8 hours 48 minutes; a mean lunation = 29 days 12 hours 44 minutes; the difference between a mean lunation and an astronomical lunation will amount to a day in about 2,400 years. The names of the months are:—Muḥarram (30 days), Ṣafar (29 days), Rabî'a al-awwal (30 days), Rabî'a al-âkhir (29 days), Gumâda al-awwal (30 days), Gumâda al-âkhir (29 days), Ragab (30 days), Sha'bân (29 days), Ramaḍân (30 days), Shawwâl (29 days), Dhu'l-ḳa'dah (30 days), and Dhu'l-ḥiggah (29 days).

Dervishes.

The **Dervishes** (from the Persian *darwîsh*, plur. *darawîsh*) are composed of a number of bodies of men, many of whom declare themselves to be "favourites" of God, and they lead lives which are more or less ascetic, and claim to have the power of working miracles by means of the power of God which, they declare, resides in them. Some of the orders emulate the lives of the most ascetic of the Christian Fathers, and they starve and ill-treat their bodies in a manner which is at times almost incomprehensible. Opinions are divided as to their object in doing this. Some maintain that they perform severe ascetic labours on earth merely that they may escape punishment in the next world, and may obtain the joys of Paradise, and others declare that they do them because they believe that in proportion as they mortify the flesh and subdue its passions and desires, they obtain a greater measure of the Spirit or Presence of God which comes to them, and makes its abode in them. It is, however, very hard to believe that the latter view exists to any great extent among the dervishes of Cairo, for large numbers of them spend most of their lives in following the ordinary occupations of the world, and are only dervishes on special occasions; many of them are married, and many of them court and enjoy the admiration of the spectators who watch them at their devotions, and are not by any means averse from the receipt of gifts. The surroundings and manner of life of most of them are wholly incompatible with the divine contemplation

in solitude, coupled with fasting and prayer, and the weaving of mats and baskets, which we associate with the teachings of Anthony the Great, Macarius, Pachomius, and others. The four great orders of Dervishes in Egypt at the present time are :—

1. The **Rifâ'îyah,** which was founded by Sayyid Aḥmad Rifâ'ah Al Kabîr; its banners are black, and the turbans of its members are black, or very dark blue or green. The division of this order, called 'Ilwânîyah, thrust iron spikes into their eyes, break large masses of stone on their chests, eat live coals and glass, drive swords through their bodies and large needles through their cheeks, and it is said that members of this division when almost naked used to carry under their arms pieces of palm-trunks filled with burning rags which had been soaked in oil and tar, and that they bore them in religious processions with the flames curling over their bare chest, back, and head, apparently without injury to themselves. Another division of the order is the Su'diyah, and its members perform wonderful tricks with living snakes and scorpions, which they partly eat. Formerly a number of these dervishes used, on the Prophet's birthday, to lay themselves side by side on the ground and allow their Shêkh to ride over their bodies, and it was asserted by all who were interested in the matter that the men were not hurt by the horses' hoofs. The ceremony is called the "DOSAH," and was abolished by Tawfîḳ Pâshâ soon after he became Khedive.

2. The order **Ḳâdirîyah** was founded by Sayyid 'Abd al-Ḳâdir Al-Gîlânî; its members carry white banners, and most of them are fishermen.

3. The order **Aḥmadîyah** was founded by Aḥmad Al-Badâwî, also known as Abû Farrâg, a saint who is buried at Ṭanṭâ in the Delta; its members carry red banners, and are regarded with much esteem. Other divisions of the order are the **Bêyûmîyah**, the **Sha'arâwîyah,** and the **Shinnawîyah.** The members of the last-named division train an ass to perform a strange part in the ceremonies of the last day of the birthday festival of their great patron saint. The ass, of its own accord, enters the mosque of the Sayyid, proceeds to the tomb, and there stands while multitudes crowd around it, and each person who can approach near enough to it plucks off some of its hair, to use as a charm, until the skin of the poor beast is as bare as the palm of a man's hand. The **Awlâd Nûh**, or "sons of Noah," also belong to this order, and they wear high caps, with a tuft of pieces of various coloured cloth on the top,

wooden swords, and numerous strings of beads, and carry a kind of whip, a thick twist of cords, etc.

4. The order **Burhamîyah** was founded by Ibrâhîm of the town of Dasuḳ; its members carry green banners and wear green turbans.

The religious exercises of the dervishes consist chiefly in the performance of **Zikrs.** The men usually stand or sit in a double line, facing each other, and shout in Arabic, "There is no god but God," or "God, God, God," or repeat some similar invocation until their strength fails or their voice gives out, and all the time they are shouting they move forward their heads or arms or the whole of the upper halves of their bodies. To aid them in their rhythmical bowings they are often accompanied by some kind of musical instrument, and the length of time which they can continue their bowings is so long that the beholder is utterly wearied with watching them. Mr. Lane witnessed a performance of the **Dancing Dervishes**, six in number, who began their exhibition by shouting "Allah" to the beating of tambourines. Each seemed to be performing the antics of a madman, and jumped and screamed, and seemed bent rather on playing the buffoon than or observing religious exercises. One man had nothing on but a tunic without sleeves and girdle, and another wore a cap only. The former rushed to a copper warming dish full of red-hot charcoal, and snatching up piece after piece of the glowing charcoal thrust it in his mouth; having kept the charcoal in his mouth for three minutes he swallowed it, apparently without injury to himself. His companion also seized a large piece of red-hot charcoal, which, after two minutes, he chewed and swallowed, and then continued his dance. The dancing dervishes were founded by Muḥammad ibn 'Îsa, a man from the north-west coast of Africa. The **Whirling Dervishes** used to form themselves into a large ring, and as they shouted "Allah" they bowed the head and body and took a step to the right, so that the whole ring moved round. One of the number then stepped out into the centre, and for about ten minutes whirled himself about with such rapidity that his dress spread out like an umbrella; he then returned to the ring, and other dervishes left it, and having formed a small ring by themselves, they whirled round at a most extravagant rate, and the outer ring moved round quicker and quicker, each man shouting "Allah," and stepping to the right as quickly as he could. The **Howling Dervishes** either stand and bow their heads and

bodies, and shout "Allah" each time they do so, or they kneel for long periods and proclaim their belief in Allah and his Prophet Muḥammad. After a time, when they have worked themselves up to the pitch of frenzy necessary, they keep shouting "Hu," *i.e.*, HE, that is, GOD. It is this exclamation which has caused certain travellers to describe them as "Barking Dervishes." In Egypt, as in all Muslîm countries, the number of orders of dervishes is legion; new ones spring up each generation, and others disappear. The profession of dervish is followed by many beggars, who succeed in obtaining a good livelihood from the well-to-do and benevolent Muḥammadans, who have usually a kindly feeling for the wandering poor. In the first half of the XIXth century there might often be seen in Cairo and Ṭanṭâ dervishes who were considered to be specially holy on account of pilgrimages which they had performed with great labour to the shrines of certain Muḥammadan saints. Some would visit Karbala, where the descendants of 'Alî are specially venerated, not by walking or riding there in the ordinary way, but by lying down at full length on the ground and getting upright on their feet many thousands of times until they had literally measured the whole way, from the place where they started to their destination, with their bodies. Others would shout "Hu," *i.e.*, He, that is, God, so many times a minute from sunrise to sunset, for months or years at a time.

Comparative Table of the Muḥammadan and Christian Eras.

The **era** in use among the Arabs is that of the **Hijrah**, or "Flight," and should be reckoned from Friday, June 20th, A.D. 622, *i.e.*, the day after Muḥammad the Prophet fled from Mecca to Madînah. Modern Arab writers, however, make this era begin on July 16, 622. As in most works dealing with the Muḥammadan section of the history of Egypt the dates given are those of the Hijrah, the following table giving the Christian era equivalents of a number of years of the Arab era will be useful:—

A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.
1	622	7	628	13	634	19	640	25	645
2	623	8	629	14	635	20	640	26	646
3	624	9	630	15	636	21	641	27	647
4	625	10	631	16	637	22	642	28	648
5	626	11	632	17	638	23	643	29	649
6	627	12	633	18	639	24	644	30	650

A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.
31	651	83	702	135	752	187	802	239	853
32	652	84	703	136	753	188	803	240	854
33	653	85	704	137	754	189	804	241	855
34	654	86	705	138	755	190	805	242	856
35	655	87	705	139	756	191	806	243	857
36	656	88	706	140	757	192	807	244	858
37	657	89	707	141	758	193	808	245	859
38	658	90	708	142	759	194	809	246	860
39	659	91	709	143	760	195	810	247	861
40	660	92	710	144	761	196	811	248	862
41	661	93	711	145	762	197	812	249	863
42	662	94	712	146	763	198	813	250	864
43	663	95	713	147	764	199	814	251	865
44	664	96	714	148	765	200	815	252	866
45	665	97	715	149	766	201	816	253	867
46	666	98	716	150	767	202	817	254	868
47	667	99	717	151	768	203	818	255	868
48	668	100	718	152	769	204	819	256	869
49	669	101	719	153	770	205	820	257	870
50	670	102	720	154	770	206	821	258	871
51	671	103	721	155	771	207	822	259	872
52	672	104	722	156	772	208	823	260	873
53	672	105	723	157	773	209	824	261	874
54	673	106	724	158	774	210	825	262	875
55	674	107	725	159	775	211	826	263	876
56	675	108	726	160	776	212	827	264	877
57	676	109	727	161	777	213	828	265	878
58	677	110	728	162	778	214	829	266	879
59	678	111	729	163	779	215	830	267	880
60	679	112	730	164	780	216	831	268	881
61	680	113	731	165	781	217	832	269	882
62	681	114	732	166	782	218	833	270	883
63	682	115	733	167	783	219	834	271	884
64	683	116	734	168	784	220	835	272	885
65	684	117	735	169	785	221	835	273	886
66	685	118	736	170	786	222	836	274	887
67	686	119	737	171	787	223	837	275	888
68	687	120	737	172	788	224	838	276	889
69	688	121	738	173	789	225	839	277	890
70	689	122	739	174	790	226	840	278	891
71	690	123	740	175	791	227	841	279	892
72	691	124	741	176	792	228	842	280	893
73	692	125	742	177	793	229	843	281	894
74	693	126	743	178	794	230	844	282	895
75	694	127	744	179	795	231	845	283	896
76	695	128	745	180	796	232	846	284	897
77	696	129	746	181	797	233	847	285	898
78	697	130	747	182	798	234	848	286	899
79	698	131	748	183	799	235	849	287	900
80	699	132	749	184	800	236	850	288	900
81	700	133	750	185	801	237	851	289	901
82	701	134	751	186	802	238	852	290	902

A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.
291	903	343	954	395	1004	447	1055	499	1105
292	904	344	955	396	1005	448	1056	500	1106
293	905	345	956	397	1006	449	1057	501	1107
294	906	346	957	398	1007	450	1058	502	1108
295	907	347	958	399	1008	451	1059	503	1109
296	908	348	959	400	1009	452	1060	504	1110
297	909	349	960	401	1010	453	1061	505	1111
298	910	350	961	402	1011	454	1062	506	1112
299	911	351	962	403	1012	455	1063	507	1113
300	912	352	963	404	1013	456	1063	508	1114
301	913	353	964	405	1014	457	1064	509	1115
302	914	354	965	406	1015	458	1065	510	1116
303	915	355	965	407	1016	459	1066	511	1117
304	916	356	966	408	1017	460	1067	512	1118
305	917	357	967	409	1018	461	1068	513	1119
306	918	358	968	410	1019	462	1069	514	1120
307	919	359	969	411	1020	463	1070	515	1121
308	920	360	970	412	1021	464	1071	516	1122
309	921	361	971	413	1022	465	1072	517	1123
310	922	362	972	414	1023	466	1073	518	1124
311	923	363	973	415	1024	467	1074	519	1125
312	924	364	974	416	1025	468	1075	520	1126
313	925	365	975	417	1026	469	1076	521	1127
314	926	366	976	418	1027	470	1077	522	1128
315	927	367	977	419	1028	471	1078	523	1128
316	928	368	978	420	1029	472	1079	524	1129
317	929	369	979	421	1030	473	1080	525	1130
318	930	370	980	422	1030	474	1081	526	1131
319	931	371	981	423	1031	475	1082	527	1132
320	932	372	982	424	1032	476	1083	528	1133
321	933	373	983	425	1033	477	1084	529	1134
322	933	374	984	426	1034	478	1085	530	1135
323	934	375	985	427	1035	479	1086	531	1136
324	935	376	986	428	1036	480	1087	532	1137
325	936	377	987	429	1037	481	1088	533	1138
326	937	378	988	430	1038	482	1089	534	1139
327	938	379	989	431	1039	483	1090	535	1140
328	939	380	990	432	1040	484	1091	536	1141
329	940	381	991	433	1041	485	1092	537	1142
330	941	382	992	434	1042	486	1093	538	1143
331	942	383	993	435	1043	487	1094	539	1144
332	943	384	994	436	1044	488	1095	540	1145
333	944	385	995	437	1045	489	1095	541	1146
334	945	386	996	438	1046	490	1096	542	1147
335	946	387	997	439	1047	491	1097	543	1148
336	947	388	998	440	1048	492	1098	544	1149
337	948	389	998	441	1049	493	1099	545	1150
338	949	390	999	442	1050	494	1100	546	1151
339	950	391	1000	443	1051	495	1101	547	1152
340	951	392	1001	444	1052	496	1102	548	1153
341	952	393	1002	445	1053	497	1103	549	1154
342	953	394	1003	446	1054	498	1104	550	1155

A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.
551	1156	604	1207	657	1258	710	1310	763	1361
552	1157	605	1208	658	1259	711	1311	764	1362
553	1158	606	1209	659	1260	712	1312	765	1363
554	1159	607	1210	660	1261	713	1313	766	1364
555	1160	608	1211	661	1262	714	1314	767	1365
556	1160	609	1212	662	1263	715	1315	768	1366
557	1161	610	1213	663	1264	716	1316	769	1367
558	1162	611	1214	664	1265	717	1317	770	1368
559	1163	612	1215	665	1266	718	1318	771	1369
560	1164	613	1216	666	1267	719	1319	772	1370
561	1165	614	1217	667	1268	720	1320	773	1371
562	1166	615	1218	668	1269	721	1321	774	1372
563	1167	616	1219	669	1270	722	1322	775	1373
564	1168	617	1220	670	1271	723	1323	776	1374
565	1169	618	1221	671	1272	724	1323	777	1375
566	1170	619	1222	672	1273	725	1324	778	1376
567	1171	620	1223	673	1274	726	1325	779	1377
568	1172	621	1224	674	1275	727	1326	780	1378
569	1173	622	1225	675	1276	728	1327	781	1379
570	1174	623	1226	676	1277	729	1328	782	1380
571	1175	624	1226	677	1278	730	1329	783	1381
572	1176	625	1227	678	1279	731	1330	784	1382
573	1177	626	1228	679	1280	732	1331	785	1383
574	1178	627	1229	680	1281	733	1332	786	1384
575	1179	628	1230	681	1282	734	1333	787	1385
576	1180	629	1231	682	1283	735	1334	788	1386
577	1181	630	1232	683	1284	736	1335	789	1387
578	1182	631	1233	684	1285	737	1336	790	1388
579	1183	632	1234	685	1286	738	1337	791	1388
580	1184	633	1235	686	1287	739	1338	792	1389
581	1185	634	1236	687	1288	740	1339	793	1390
582	1186	635	1237	688	1289	741	1340	794	1391
583	1187	636	1238	689	1290	742	1341	795	1392
584	1188	637	1239	690	1291	743	1342	796	1393
585	1189	638	1240	691	1291	744	1343	797	1394
586	1190	639	1241	692	1292	745	1344	798	1395
587	1191	640	1242	693	1293	746	1345	799	1396
588	1192	641	1243	694	1294	747	1346	800	1397
589	1193	642	1244	695	1295	748	1347	801	1398
590	1193	643	1245	696	1296	749	1348	802	1399
591	1194	644	1246	697	1297	750	1349	803	1400
592	1195	645	1247	698	1298	751	1350	804	1401
593	1196	646	1248	699	1299	752	1351	805	1402
594	1197	647	1249	700	1300	753	1352	806	1403
595	1198	648	1250	701	1301	754	1353	807	1404
596	1199	649	1251	702	1302	755	1354	808	1405
597	1200	650	1252	703	1303	756	1355	809	1406
598	1201	651	1253	704	1304	757	1356	810	1407
599	1202	652	1254	705	1305	758	1356	811	1408
600	1203	653	1255	706	1306	759	1357	812	1409
601	1204	654	1256	707	1307	760	1358	813	1410
602	1205	655	1257	708	1308	761	1359	814	1411
603	1206	656	1258	709	1309	762	1360	815	1412

A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.
816	1413	869	1464	922	1516	975	1567	1028	1618
817	1414	870	1465	923	1517	976	1568	1029	1619
818	1415	871	1466	924	1518	977	1569	1030	1620
819	1416	872	1467	925	1519	978	1570	1031	1621
820	1417	873	1468	926	1519	979	1571	1032	1622
821	1418	874	1469	927	1520	980	1572	1033	1623
822	1419	875	1470	928	1521	981	1573	1034	1624
823	1420	876	1471	929	1522	982	1574	1035	1625
824	1421	877	1472	930	1523	983	1575	1036	1626
825	1421	878	1473	931	1524	984	1576	1037	1627
826	1422	879	1474	932	1525	985	1577	1038	1628
827	1423	880	1475	933	1526	986	1578	1039	1629
828	1424	881	1476	934	1527	987	1579	1040	1630
829	1425	882	1477	935	1528	988	1580	1041	1631
830	1426	883	1478	936	1529	989	1581	1042	1632
831	1427	884	1479	937	1530	990	1582	1043	1633
832	1428	885	1480	938	1531	991	1583	1044	1634
833	1429	886	1481	939	1532	992	1584	1045	1635
834	1430	887	1482	940	1533	993	1585	1046	1636
835	1431	888	1483	941	1534	994	1585	1047	1637
836	1432	889	1484	942	1535	995	1586	1048	1638
837	1433	890	1485	943	1536	996	1587	1049	1639
838	1434	891	1486	944	1537	997	1588	1050	1640
839	1435	892	1486	945	1538	998	1589	1051	1641
840	1436	893	1487	946	1539	999	1590	1052	1642
841	1437	894	1488	947	1540	1000	1591	1053	1643
842	1438	895	1489	948	1541	1001	1592	1054	1644
843	1439	896	1490	949	1542	1002	1593	1055	1645
844	1440	897	1491	950	1543	1003	1594	1056	1646
845	1441	898	1492	951	1544	1004	1595	1057	1647
846	1442	899	1493	952	1545	1005	1596	1058	1648
847	1443	900	1494	953	1546	1006	1597	1059	1649
848	1444	901	1495	954	1547	1007	1598	1060	1650
849	1445	902	1496	955	1548	1008	1599	1061	1650
850	1446	903	1497	956	1549	1009	1600	1062	1651
851	1447	904	1498	957	1550	1010	1601	1063	1652
852	1448	905	1499	958	1551	1011	1602	1064	1653
853	1449	906	1500	959	1551	1012	1603	1065	1654
854	1450	907	1501	960	1552	1013	1604	1066	1655
855	1451	908	1502	961	1553	1014	1605	1067	1656
856	1452	909	1503	962	1554	1015	1606	1068	1657
857	1453	910	1504	963	1555	1016	1607	1069	1658
858	1454	911	1505	964	1556	1017	1608	1070	1659
859	1454	912	1506	965	1557	1018	1609	1071	1660
860	1455	913	1507	966	1558	1019	1610	1072	1661
861	1456	914	1508	967	1559	1020	1611	1073	1662
862	1457	915	1509	968	1560	1021	1612	1074	1663
863	1458	916	1510	969	1561	1022	1613	1075	1664
864	1459	917	1511	970	1562	1023	1614	1076	1665
865	1460	918	1512	971	1563	1024	1615	1077	1666
866	1461	919	1513	972	1564	1025	1616	1078	1667
867	1462	920	1514	973	1565	1026	1617	1079	1668
868	1463	921	1515	974	1566	1027	1617	1080	1669

A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.	A.H.	A.D.
1081	1670	1133	1720	1185	1771	1237	1821	1289	1872
1082	1671	1134	1721	1186	1772	1238	1822	1290	1873
1083	1672	1135	1722	1187	1773	1239	1823	1291	1874
1084	1673	1136	1723	1188	1774	1240	1824	1292	1875
1085	1674	1137	1724	1189	1775	1241	1825	1293	1876
1086	1675	1138	1725	1190	1776	1242	1826	1294	1877
1087	1676	1139	1726	1191	1777	1243	1827	1295	1878
1088	1677	1140	1727	1192	1778	1244	1828	1296	1878
1089	1678	1141	1728	1193	1779	1245	1829	1297	1879
1090	1679	1142	1729	1194	1780	1246	1830	1298	1880
1091	1680	1143	1730	1195	1780	1247	1831	1299	1881
1092	1681	1144	1731	1196	1781	1248	1832	1300	1882
1093	1682	1145	1732	1197	1782	1249	1833	1301	1883
1094	1682	1146	1733	1198	1783	1250	1834	1302	1884
1095	1683	1147	1734	1199	1784	1251	1835	1303	1885
1096	1684	1148	1735	1200	1785	1252	1836	1304	1886
1097	1685	1149	1736	1201	1786	1253	1837	1305	1887
1098	1686	1150	1737	1202	1787	1254	1838	1306	1888
1099	1687	1151	1738	1203	1788	1255	1839	1307	1889
1100	1688	1152	1739	1204	1789	1256	1840	1308	1890
1101	1689	1153	1740	1205	1790	1257	1841	1309	1891
1102	1690	1154	1741	1206	1791	1258	1842	1310	1892
1103	1691	1155	1742	1207	1792	1259	1843	1311	1893
1104	1692	1156	1743	1208	1793	1260	1844	1312	1894
1105	1693	1157	1744	1209	1794	1261	1845	1313	1895
1106	1694	1158	1745	1210	1795	1262	1845	1314	1896
1107	1695	1159	1746	1211	1796	1263	1846	1315	1897
1108	1696	1160	1747	1212	1797	1264	1847	1316	1898
1109	1697	1161	1748	1213	1798	1265	1848	1317	1899
1110	1698	1162	1748	1214	1799	1266	1849	1318	1900
1111	1699	1163	1749	1215	1800	1267	1850	1319	1901
1112	1700	1164	1750	1216	1801	1268	1851	1320	1902
1113	1701	1165	1751	1217	1802	1269	1852	1321	1903
1114	1702	1166	1752	1218	1803	1270	1853	1322	1904
1115	1703	1167	1753	1219	1804	1271	1854	1323	1905
1116	1704	1168	1754	1220	1805	1272	1855	1324	1906
1117	1705	1169	1755	1221	1806	1273	1856	1325	1907
1118	1706	1170	1756	1222	1807	1274	1857	1326	1908
1119	1707	1171	1757	1223	1808	1275	1858	1327	1909
1120	1708	1172	1758	1224	1809	1276	1859	1328	1910
1121	1709	1173	1759	1225	1810	1277	1860	1329	1911
1122	1710	1174	1760	1226	1811	1278	1861	1330	1911
1123	1711	1175	1761	1227	1812	1279	1862	1331	1912
1124	1712	1176	1762	1228	1813	1280	1863	1332	1913
1125	1713	1177	1763	1229	1813	1281	1864	1333	1914
1126	1714	1178	1764	1230	1814	1282	1865	1334	1915
1127	1715	1179	1765	1231	1815	1283	1866	1335	1916
1128	1715	1180	1766	1232	1816	1284	1867	1336	1917
1129	1716	1181	1767	1233	1817	1285	1868	1337	1918
1130	1717	1182	1768	1234	1818	1286	1869	1338	1919
1131	1718	1183	1769	1235	1819	1287	1870	1339	1920
1132	1719	1184	1770	1236	1820	1288	1871	1340	1921

INDEX.

A.

B.

E.

G.

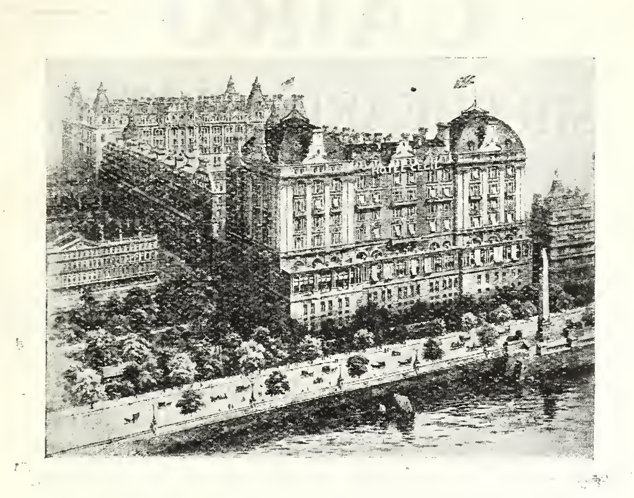
J.

K.

P.

Q.

R.



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